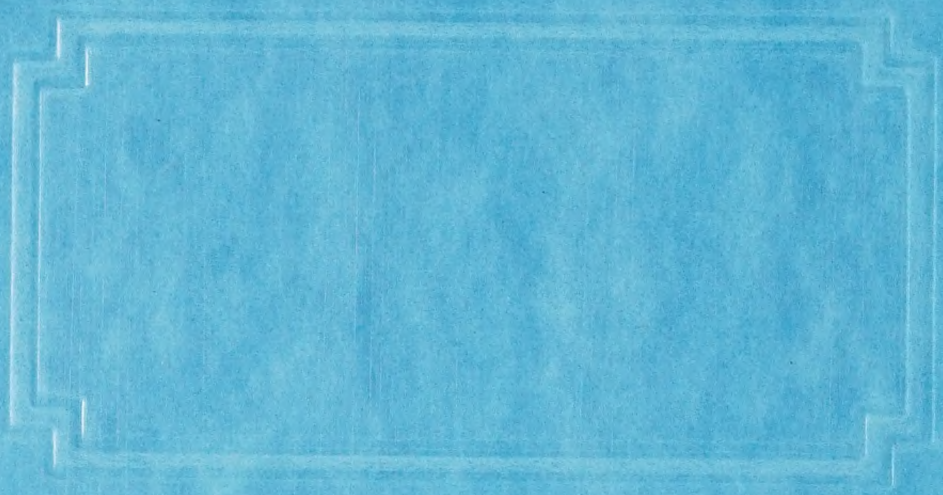
A BRIEF TO THE
Medical Services Insurance Committee
of Ontario
by the
Ontario Chiropractic Association



A Brief

Submitted to the

Medical Services Insurance Committee

with respect to

Bill 163 of the 1962-63 Session of the

Legislative Assembly of the Province of Ontario

on behalf of

the Chiropractic Profession in Ontario

by the

Ontario Chiropractic Association

Presented

November, 1963

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Would Treat appendicitis
Cholecystitis
Angina pectoris
Hypertension

if there is evidence of spinal column mal-alignment.

If no beneficial results within a period that might be 2 days or longer — would refer to physician.

50% chiropractors in Ontario — 564.

? X-ray therapy —

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SUMMARY

Mr. Chairman, members of the Committee,

S-1. This brief is submitted by the Ontario Chiropractic Association, a Provincial Division of the Canadian Chiropractic Association, to inform the Medical Services Insurance Committee of the position, services and views of the chiropractic profession relating to Bill 163, An Act Respecting Medical Services Insurance.

S-2. In May of 1962, our association participated, along with the Canadian Chiropractic Association and other Provincial Divisions and the Canadian Memorial Chiropractic College, in a detailed presentation to Canada's Royal Commission on Health Services. Appropriate material from that submission is included in this brief, however, we have endeavoured to keep this presentation to a reasonable length, therefore, if the committee members wish to have access to additional information they may refer to our Brief to the Royal Commission on Health Services - - - - EXHIBIT (1). and to our Rebuttal Submission to the Royal Commission on Health Services - - - EXHIBIT (2).

S-3. The 23 exhibits and 7 appendices which accompany this brief are well indexed, with references to the paragraphs in which they are mentioned. They serve to outline the scientific and physiological basis of chiropractic and demonstrate the prompt response to chiropractic care that is evident in many conditions after other methods of treatment have been unsuccessful.

S-4. In paragraphs 124 and 125 we have pointed out that chiropractic methods do not provide a panacea and that those cases which are outside of our scope of practice are referred to the practitioner who is best suited to treat the condition.

S-5. In connection with the Explanatory Note of Bill 163 where it states, "The purpose of this Bill is to make it possible for all residents of Ontario to obtain protection against the cost of medical and surgical care and services", we submit that the term "medical care and services" should be interpreted in a manner similar to the term "medical aid" in the Workmen's Compensation Act of Ontario. In that Act "medical aid" includes the services of

S-5. (Continued)

chiropractors in the care of injured workmen. Bill 163 should make provision for the residents of Ontario to receive these services from licensed, qualified chiropractors, just as the government has provided chiropractic care under the Workmen's Compensation Act since 1937. (Para. 9 & 46-56)

S-6. The legal status of the chiropractor in this province has been established by the government and the policy of providing chiropractic care under the terms of provincial legislation has been established in the Workmen's Compensation Act. It is therefore inconsistent to have overlooked the inclusion of these services in Bill 163.

S-7. It also discriminates against those persons in the general population who require and utilize these services. (Para 170)

S-8. In the Province of Alberta, welfare cases are provided with chiropractic care by the government of that province. (Para 193-0)

S-9. In the Province of Manitoba, pensioners have been provided with chiropractic care by the provincial government. (Para 193-0)

S-10. In the Province of British Columbia, provincial civil servants receive chiropractic care through their B.C. Government Employees Medical Services, administered by their own representatives.

S-11. Members of the American Federation of Government Employees in the United States may receive the services of a chiropractor under their health insurance plan. (Par. 161)

S-12. In the Province of Ontario, surely no less concern should be shown for the welfare of our residents than we see in other areas.

S-13. In regard to the question of economics two points must be considered:

(a) Many patients who have received medical care for certain conditions without success, turn to chiropractors and receive prompt relief. (Para 227 and 236 and 238)

(b) Statistics from the Florida Industrial Commission, prepared by an independent research corporation show that the care of spinal sprains and strains is more effective from the standpoint of treatment and cost when under the direction of a chiropractor than under other methods. (Para 55-56)

S-14. Unless chiropractors' services are included in Bill 163, patients such as those described in (a), will tend to seek medical attention, thus utilizing the services of the plan, but will finally attend a chiropractor (para's 227 & 236) whose services they will have to pay for out of their own pocket. This places an unnecessary charge against the plan and then requires that the patient meet his own bills for the services which are of assistance to him. In the case of indigents this situation completely defeats the intention of Bill 163, which is to relieve the indigent patient of the heavy burden of meeting his own health needs.

S-15. The statistics referred to in item (b) show that if the patient is given the opportunity to attend a chiropractor, (under Bill 163) the cost of care will be substantially less in the case of spinal strains and sprains, than if he is forced by circumstances to seek other forms of treatment.

S-16. This type of discrimination against the patient has been erradicated in the State of New Mexico where an Act was recently passed requiring all insurance policies to include the services of "any licensed practitioner of the healing arts". The Act states that its purpose is "prohibiting discrimination". (Para 163)

S-17. The demand for chiropractic services has increased rapidly over the past few years indicating that the residents of Ontario want and require this type of care. The amount of work our members have done for the Workmen's Compensation Board has increased by 308.8% in a six year period and is still increasing. (Para. 53-54) The Co-operative Medical Services Federation of Ontario added chiropractic benefits to the health services provided to their members and since January 1963 six of the county co-operatives have signed contracts with the Ontario Chiropractic Association (Para 160). Other county units are planning to add this benefit in the near future. Aetna Life Affiliated Companies, the second largest insurance group in the United States, also with branches in Canada, has included chiropractic services in its basic plan for some years, but has recently announced that this benefit is being extended and will be included in both their major medical and comprehensive medical insurance plans. (Para 162)

S-18. This action on the part of insurance companies is a reflection of public demand and this demand is exemplified by such groups as the Dominion Command of the Canadian Legion asking the federal government to provide chiropractic care for disabled veterans (Para 193-g), and the Trades and Labour Congress of Canada, as far back as 1943, asked the Canadian government to include chiropractic treatment in the then proposed Bill entitled "The National Health Act". (Para 193-m) Other labour groups since that date have taken the same stand.

S-19. The government of Ontario, having established the legal status of chiropractors in this province, must recognize the demand for these services and provide for their inclusion in Bill 163.

S-20. In order that the committee may have access to as much information as possible about our profession we have included in our brief an historical outline of the profession in Ontario (Para 6-13) including the number and distribution of chiropractors in the province.

S-21. The section "Legislation in Ontario", deals with various statutes and regulations applying to this profession. It will be noted that both enabling and restricting provisions are dealt with. Licensing and educational standards are discussed as well as examination requirements and system of treatment. (Para's 23-45)

S-22. "Related Legislation" (Para's 46-66) deals with the Workmen's Compensation Act and other pieces of legislation in the health field. The booklet, "Information for Chiropractors", issued by the Board of Directors of Chiropractic of Ontario, (APPENDIX 7), has been distributed to all chiropractors in Ontario so that they will be familiar with these acts.

S-23. Under "Professional Organizations" (Para's 67-108) we have mentioned briefly the Canadian Chiropractic Association, the Ontario Chiropractic Association, the district councils of the provincial division, the Canadian Council of Chiropractic Roentgenology, and the Canadian Memorial Chiropractic College. Significant points to be noted here are:

(a) the establishment this year of a National Examining Board by the Committee on Education of the Canadian Chiropractic Association. Successful candidates may apply for licensure in the various provinces. (Para 69)

(b) the conducting of regular post-graduate courses in the field of roentgenology by the Canadian Council of Chiropractic Roentgenology. (Para's 95-96)

(c) the four year course of study at the Canadian Memorial Chiropractic College is outlined in the monograph "Chiropractor", issued by the Guidance Centre of the Ontario College of Education, and attached as APPENDIX 1 (English), and APPENDIX 2 (French), and in the Calendar of the college, EXHIBIT 5.

S-24. The section, "Chiropractic Practice in Ontario" (para's 109-175) presents the principles upon which chiropractic practice is based and discusses the chiropractors' area of interest in the health field, (Para's 109-131). This section also includes sub-headings dealing with facilities (Para 132), services rendered (para 141), and economic aspects (para 149).

S-25. Under "Public Service Projects" (Para's 176-192) we have discussed the importance of correct posture and good body mechanics to the health of the nation and our industrial accident prevention survey (Para's 182-3) has demonstrated the results that can be obtained by devoting sufficient attention to this field. Not only will chiropractic care of spinal injuries reduce time-loss and treatment costs (para's 52-56) but properly conducted surveys of industrial plants to study body mechanics and working conditions of employees will reduce the number of accidents. (Para's 182-183).

S-26. "Recognition of Chiropractic" (Para 193, a-o) points out that various levels of society are requesting the inclusion of chiropractic benefits in health plans. These requests come not only from the man-on-the-street but also through such groups as the Canadian Legion, organized labour, civil servants and others. The provinces of Alberta and Manitoba made this service available to welfare cases and pensioners. (Para 193-o)

S-27. Under "Mental Health" (Para's 194-200) we have shown that chiropractic care can be helpful in the treatment of the mentally ill patient. Undue irritation to the nervous system caused by spinal misalignments can be a significant factor in mental illness, a field in which the need for improvements in treatment has already been recognized. We have submitted two exhibits which outline the benefits that such patients have received from chiropractic care.

EXHIBIT 8 is entitled "Nervous and Mental Cases Under Chiropractic Care".

EXHIBIT 9 is entitled "Home Care For The Emotionally Ill", by H. S. Schwartz, D.C.

S-28. In the section entitled "Medicine and Chiropractic" (Para's 201-246) we have dealt at some length with the relationships between the chiropractic and medical professions for two reasons. First, to demonstrate the extensive changes that have taken place in medical thinking in regard to chiropractic principles over the years. They have travelled all the way from outright rejection (Para 218) to the more modern view that chiropractic methods have brought about improvements in diagnosis and treatment of many painful conditions (Para 232) and that this is accomplished "more quickly and more economically"

S-28. (continued)

(Para 236). These changing views have also been reported to the Canadian Medical Association in convention. (Para's 225-229)

S-29. The second reason for the detail contained in this section is to point out the scope of chiropractic practice and the potential that exists for vastly improving the standards of health care by making these services available through government sponsored health insurance plans, such as Bill 163.

S-30. The recommendations which we submitted to the Royal Commission on Health Services, do not all apply under the terms of reference of this committee, but we have taken those that are appropriate and added comments with respect to Bill 163.

RECOMMENDATIONS

on

FOLLOWING PAGES

RECOMMENDATION #1

"That all citizens be uniformly afforded the opportunity to be covered under the provisions of any national health plan."

(a) The provincial plan, as proposed in Bill 163, with its universal availability (including variable contributions) to all residents of Ontario, meets this recommendation.

RECOMMENDATION #2

"That a participating citizen may go to the practitioner of his choice and may change from one to another on reasonable cause (except where custodial or compulsory care restricts, by statute, the individual's right of choice)."

(a) By Schedule A and Schedule B, the Bill restricts care of a "covered person" to "necessary professional services of a physician". "Physician" is defined in Section 1.(L) of the Bill. This definition restricts services to those rendered only by practitioners registered under The Medical Act (RSO 1960, c.234; 1962-63, c. 80), and does not include practitioners of the other major healing arts licensed to practice under other Ontario statutes.

(b) A covered person would thus be denied the right of free choice of practitioner. The opportunity to change type of practitioner for reasonable cause is also denied.

(c) Under an existing Ontario statute, The Workmen's Compensation Act (RSO 1960, c. 437; 1962-63, c. 145), an injured workman has the initial right to free choice of type of registered practitioner. This has ensured the availability of chiropractic services for care of compensation cases since 1937.

(d) In order to provide adequate freedom of choice, and adequate health services, it is recommended that the Bill be amended to make provision for chiropractic services rendered by chiropractors.

RECOMMENDATION #2 (continued)

(e) We reiterate here, that in the case of spinal strains and sprains in particular, one of the most common of industrial and household accidents and one responsible for much time-loss and expense, the statistics presented show that chiropractic care is more effective and more economical than other forms of treatment. (Para 52 and 55)

RECOMMENDATION #3

"That chiropractic services be made available under any national health services plan, or that chiropractic services be made available in any health service providing care on an office visit basis in which there is an expenditure of public funds."

(a) Not only should Bill 163 provide for chiropractic services as a right of choice to all full paying participants, but also where there is an expenditure of public funds, the freedom of choice should be available. This applies to those entitled to full payment from public funds of premiums under Schedule C and those receiving complete or partial assistance under Section 3 (b).

(b) The question of indigent care is covered in paragraph 165, as follows:-

"The chiropractic profession assumes its fair share of social and gratuitous services ranging from group projects to indigent care at the individual level. In addition, many recipients of public assistance requiring chiropractic care are treated without charge. While a contract for medical care exists between the government and the Ontario Medical Association, this contract makes no provision for the payment of chiropractic services."

(c) The provinces of Alberta and Manitoba have made provision for chiropractic care of those receiving public assistance. In fairness to all concerned, Ontario can do no less.

RECOMMENDATION #4

"That the special ability and contribution of the chiropractor be recognized and utilized in present provisions or future plans without medical prescription or other restrictions or discrimination."

RECOMMENDATION #5

"That the services of the chiropractor may be available in individual offices, group practice, or diagnostic centres."

(a) The Ontario Chiropractic Association brief outlines the special ability and contribution of the chiropractor in the provision of health care in Ontario. Further, it has been shown that the citizens of this Province utilize chiropractic services extensively; they expect these services to be available, and they would therefore expect chiropractic services to be included in any government sponsored plan.

(b) It is unlikely that chiropractic services would be made available under any regulations authorized by Section 21 of Bill 163, since such a step would contravene the present intent of the Bill that all care be provided "by or under the direction of a physician". Past experience and the fact that the physician has had no training in understanding chiropractic, because of his limited and informal knowledge of it, would make it impossible for chiropractic services to be rendered only on medical prescription in any plan.

RECOMMENDATION #6

"That the chiropractor has the right to refer patients to any other participating practitioner, when it will serve the best interests of the patient."

RECOMMENDATION #7

"That any patient failing to co-operate with any reasonable requirements may be dismissed or referred, providing that such patient is not placed in jeopardy."

RECOMMENDATION #8

"That treatment may be continued for as long as may be deemed necessary in the opinion of the chiropractor."

RECOMMENDATION #9

"That within a plan, a citizen may receive treatment by different health methods concurrently, but not for the same condition."

RECOMMENDATION #10

"That any plan will not restrict a citizen from seeking health care on a private patient basis."

RECOMMENDATION #11

"That a chiropractor may be employed in a salaried position in a centre operated by or for any plan."

(a) These recommendations (5-10) are suitable for the doctor-patient relationship envisioned under this Bill, and could apply to all practitioners and covered persons.

RECOMMENDATION #12

"That the usual method of remuneration for services rendered should be on a fee for service basis, in accordance with a schedule of fees agreed upon by negotiation with the Ontario Chiropractic Association."

(a) For consistency in administration, it is suggested that fees for services rendered be negotiated with the various groups of practitioners rendering these services. In the case of chiropractic fees for services, negotiations would be with the Ontario Chiropractic Association.

(b) The Act or its regulations should lay down details on payment of benefits. If such payments are to be paid to the covered person, there should be some provision to assure that the practitioner's account is actually paid. Conversely, if benefits are paid directly to or assigned to the practitioner, provision should be

RECOMMENDATION #12 (b) (continued)

made that the covered person receive notification that payment has been made. The inclusion of number of visits, total payment, etc. in such notification would prevent abuse, and a receipt as part of this notification could be used for income tax purposes.

RECOMMENDATION #13

"That a patient be charged a utilization or deterrent fee in order to prevent abuse of services. Such a fee should be paid directly to the practitioner providing the service. An alternate to the foregoing, a deductible provision, would minimize abuse and reduce administrative costs."

(a) Bill 163 makes no provision for a utilization or deterrent fee, or deductible provisions. Various forms of insurance have waiting periods, deductible provisions and other clauses to prevent abuse, over-utilization and to reduce administrative costs.

(b) Currently the Ontario Chiropractic Association has contracts with units of the Co-Operative Medical Services Federation of Ontario wherein the patient pays the chiropractor one dollar per visit.

RECOMMENDATION #14

"That administration of any plan be so arranged that no one group in commerce or the healing field may dominate or control."

(a) Bill 163 gives over complete domination for the rendering of service to the physician and his provincial association. We believe this is not in the public interest, since it is a complete negation of the principle of free choice and negotiation.

RECOMMENDATION #15

"That a separate Board of Referees be established, to adjudicate on matters pertaining to the handling of cases by a chiropractor. This Board should be composed of a representative of the plan and two chiropractors."

RECOMMENDATION #15 (continued)

(a) While the Bill provides for arbitration on certain matters (e.g. subscription rates and assessments for Medical Carriers Inc.) it makes no provision for adjudication of matters between carriers, practitioners and covered persons.

(b) The Ontario Chiropractic Association, for a number of years, has had a functioning Adjudication Committee which has worked with insurance carriers in settling mutual problems.

(c) A Board of Referees made up of a representative of the plan and two chiropractors, as recommended above, would provide an essential service.

RECOMMENDATION #16

"That if priorities are deemed necessary in any plan, implementation be in the following order:-

(A) The immediate inclusion of chiropractic services for the care of acute and chronic conditions, including welfare and public assistance cases.

(a) The study and thought which lead to the preparation of Bill 163 parallels recommendation 15(A) as to area where protection of the citizen is most urgently needed.

(b) However, the Bill is deficient in restricting services to those provided by only one profession.

(c) We consider the immediate inclusion of chiropractic services rendered by chiropractors under Schedule A, with the inclusion of recipients in Schedule C, to be an essential requirement.

CONCLUSION

S-31. The inclusion of chiropractors' services in the provisions of Bill 163 would merely be an extension of the already-established government policy of providing chiropractic care to injured workmen.

S-32. It would be consistent with the policy established in Alberta and Manitoba of providing chiropractic care for welfare cases and pensioners.

S-33. It would be consistent with the decisions being made by governments, and legal departments of governments, wherein it has been decided that legally, insurance companies must include the services of "Any licensed practitioner of the healing arts" (New Mexico) and that government welfare agencies "may not exclude certain branches of the healing arts otherwise authorized by law to render such services" (California).

S-34. It would be consistent with the opinions expressed by health authorities and independent investigators, that chiropractic methods have brought about improvements in diagnosis and treatment of many painful conditions and that spinal injuries within our scope of practice are cared for more economically and more effectively than by other methods.

S-35. It would make a significant contribution toward the problem of the shortage of personnel and facilities in the health field. The efficient utilization of the skills of the chiropractor would ease the burden on other health facilities and permit patients to be cared for more efficiently.

S-36. In the light of policies already adopted in Ontario and other areas concern for the public interest and welfare requires the inclusion of the services of qualified, licensed chiropractors under the terms of Bill 163.

Respectfully submitted on behalf of the

ONTARIO CHIROPRACTIC ASSOCIATION

Mr. Chairman, members of the Committee:

1. This brief is submitted by the Ontario Chiropractic Association to inform the members of the Medical Services Insurance Committee of the views of the chiropractic profession with respect to Bill 163; of the reasons why the services of duly qualified, licensed chiropractors should be included in the Bill and of the role that the chiropractor is playing in the health field

2. In connection with the Explanatory Note of Bill 163 where it states, "The purpose of this Bill is to make it possible for all residents of Ontario to obtain protection against the cost of medical and surgical care and services", this association submits that the term "medical care and services" should be used in the same sense in which the term "medical aid" is used in the Workmen's Compensation Act of Ontario. In this Act the term "medical aid" includes the services of both physicians and chiropractors and sets the pattern which we feel should be followed by future legislation. Failure to include such a provision would deprive residents of Ontario of the most effective method of caring for many conditions relating to the spinal column.

3. With respect to the terms of reference of your committee, we respectfuily submit that:

   a) A "feasible medical services insurance program" must include payment and coverage of chiropractors' services.

   b) Any health insurance plan "having regard to the maintenance of the physical and material well-being of the people of Ontario" necessitates the inclusion of chiropractic services.

4. With respect to necessary health services in this Province,

   a) the interests of the citizens of this Province require the availability of the unique services provided by the chiropractic profession,

   b) residents of this province should have the right to choice of health practitioners and method of treatment in meeting their health needs,

   c) efficiency of operation and completeness of health services necessitates the inclusion of chiropractic on an equal basis with the other major recognized healing arts, and

4. (continued)

d) members of the chiropractic profession in Ontario are willing to co-operate in a national health plan.

5. In May and October of 1962 the Canadian Chiropractic Association and its Provincial Divisions presented briefs to the Royal Commission on Health Services. These presentations also included submissions from the Canadian Memorial Chiropractic College, in Toronto, and reference was made to the work of the Canadian Council of Chiropractic Roentgenology. In this brief we have included only that material which we believe to be appropriate to this committee's investigation; however, in the event that the committee members might wish to have access to more complete information we are entering the briefs to Canada's Royal Commission on Health Services as EXHIBITS. (Brief dated May 1962 in Volume 6, #3, of the Journal of the Canadian Chiropractic Association is EXHIBIT #1; Rebuttal submission dated October 1962, re-printed in Volume 7, #1 of the same publication is EXHIBIT #2.)

HISTORICAL

6. The founder of modern chiropractic, Daniel David Palmer, was born in Port Perry, Ontario, March 7th, 1845. Palmer Memorial Park, with a statue honouring him, is located in this Ontario village.

7. Pioneer chiropractors were serving in Ontario communities as early as 1908. Professional associations were formed shortly thereafter, and have developed through the years into the present chiropractic organizations.

8. First legislation regulating the practice of chiropractice in Ontario was by the Drugless Practitioners Act, 1925. This Act provided for the establishment of an administering body to be known as the Board of Regents.

9. Recognition of the services of chiropractors for treatment of industrial accidents by the Ontario Workmen's Compensation Board followed in 1937.

10. The Board of Directors of Chiropractic was established by The Drugless Practitioners Amendment Act, 1952. This body, under the Department of Health of the Province of Ontario, administers the Act and regulations concerning the chiropractic profession in this Province.

11. The Robbins, Ontario and Toronto Chiropractic Colleges educated chiropractors in this Province between the years 1908 and 1928. A number of elder practitioners still active in the profession were graduated from these institutions.

12. In 1945, the Canadian Memorial Chiropractic College was established by charter, and was opened in the City of Toronto. This College is professionally owned, operated, and is a non-profit educational institution. It is the only chiropractic college in the British Commonwealth. A large percentage of Ontario chiropractors are graduates of this college, while the remainder are largely graduates of colleges located in the United States of America.

13. On August 15th, 1961, there were 633 doctors of chiropractic registered and licensed to practice in Ontario. Of this number, 564 (male 510, female 54) are currently resident in this Province.

Geographical distribution of chiropractors is as follows:-

Metropolitan Toronto area	196
Other large cities (London, Hamilton, Ottawa, Windsor)	59
139 remaining communities and their adjacent areas	309
	564

LEGISLATION IN ONTARIO

CHIROPRACTIC LEGISLATION

14. All chiropractors are licensed to practice in the Province of Ontario by the Board of Directors of Chiropractic, by authority of The Drugless Practitioners Act (RSO 1960,

14. (continued)

Chapter 114) with its amendments and regulations.

15. The office of the Board is located at 69 Bloor St. East, Toronto 5.

16. The Board of Directors of Chiropractic carries out its functions under, and is responsible to, the Ontario Minister of Health and the Provincial Department of Health.

17. As stated in the Act, the Lieutenant-Governor in Council approves regulations, appoints and/or re-appoints the five members of this Board for a two year term, and designates its officers.

18. The Board of Directors of Chiropractic represents the government by its administration of the Act and regulations.

19. The authority and responsibility of the Board assures the protection of the diverse interests of the government, the public, the profession with its professional association, and the individual practitioner.

20. The Board provides the means by which matters of import are communicated to and from the government and its other administrative and regulatory bodies. In order to carry out effectively the intent and purpose of this Act, the Board also considers and recommends improvements in legislation. An example is the request by this Board to the government, and granted, for legislation permitting control of advertising.

21. Complaints by individuals, either in the general public or the profession, are investigated and adjudicated. Recommendations from the professional associations are considered, acted upon, or passed to the Department.

22. Authority of the Board applies to all registrants, and control includes disciplinary action ranging from reprimand to suspension or cancellation of registration. To further protect the public, court actions are instituted against unregistered practitioners.

Licensing & Registration

23. Application

Applicants for registration must submit a notarized application and:-

(1) be of good moral character and supply references

(2) be at least 21 years of age

(3) have the prescribed minimum pre-professional education

(4) have graduated from a chiropractic college accredited by the Board. Official transcript from college of graduation is required, which must outline dates of resident course, hours, subjects and examination results.

24. Pre-Professional Education

The applicant must be the holder of an Ontario Secondary School Honour graduation diploma of the General Course, or an equivalent certificate as determined by the Minister of Education for Ontario.

25. Professional Education

The applicant must have graduated from an accredited college in which, by R.R.O. 119/60, 23 (2), "The course in chiropractic shall include not less than four academic years of nine months each with at least 4,200 hours of instruction in the following subjects:-

(a) anatomy, including dissection,
(b) physiology,
(c) chemistry,
(d) medical jurisprudence,
(e) pathology,
(f) psychology,
(g) opthalmology,
(h) otolaryngology,
(i) histology,
(j) diatetics,
(k) diagnosis and symptomatology
(l) radiology,
(m) first aid and minor surgery,
(n) psychiatry,
(o) bacteriology,
(p) hygiene and sanitation,
(q) obstetrics,
(r) clinical training, and
(s) principles of practice, technique and treatment."

26. Examination Requirements

By R.R.O. 119/60, 14 (1) and (2), the Board prescribes examinations for the admission of chiropractors to practice in Ontario.

The following examinations require written papers:-

(a) anatomy,
(b) histology,
(c) physiology,
(d) bacteriology,
(e) physiological chemistry,
(f) hygiene and sanitation,
(g) diagnosis and symptomatology,
(h) pathology.

In addition, the following subjects require written as well as oral or clinical examinations:-

(i) principles of practic,
(j) technique (x-ray),
(k) treatment.

27. The regulations do not permit the acceptance of college examination results in lieu of Board examinations.

28. Pass standing is a minimum of fifty per centum in each examination subject, and in addition, an overall average of sixty per centum for all examinations must be obtained.

29. A candidate who has failed in three subjects or fewer may try at a supplemental examination the subjects in which he has failed. A candidate who has failed in more than three examination subjects is required to rewrite all examinations at a future annual sitting.

30. Examinations are conducted at least once a year.

31. Examiners are appointed by the Board, and their identity for the written papers is protected.

32. Examination papers are approved by the Board, R.R.O. 119/60, 22 (2), and the examinations are conducted and supervised by the Board over a four-day period.

33. The identity of candidates is protected by assignment of identifying numbers used on papers, and such identifying numbers are known only to the Presiding Examiner.

34. The fee for examination is $50.00

License to Practice

35. License (certificate of registration) to practice chiropractic, within the scope laid down in the Act and regulations, is issued providing the fore-going requirements have been met, and registration fee of $40.00 is paid.

36. By Section 1(b) of The Drugless Practitioners Act (RSO 1960, Chapter 114), registrants may practice the treatment of any ailment, disease, defect or disability of the human body by manipulation, adjustment, manual or electrotherapy or by any similar method.

37. By Section 7 of The Drugless Practitioners Act (RSO 1960, Chapter 114), registrants may not prescribe or administer drugs for use internally or externally or use or direct or prescribe the use of anaesthetics for any purpose whatsoever or practise surgery or midwifery.

38. By R.R.O. 119/60, 1 (2), the system of treatment that may be followed by chiropractor is the treatment of persons by the relief of interference with the normal functioning of the nervous system of the body by the adjustment or the manipulation or both of the articulations and the tissues thereof, more especially those of the spinal column, and when necessary with the aid of

(a) exercise,
(b) light,
(c) thermotherapy,
(d) hydrotherapy, or
(e) electrotherapy.

39. Scope of practice is subject to provisions of the following other Provincial statutes relating to the treatment of human ailments: - The Public Health Act, The Vaccination Act, The Vital Statistics Act, The Venereal Diseases Prevention Act, The Workmen's Compensation Act.

Renewal of Registration

40. Registration is renewed each year on payment of the renewal fee of $20.00 providing registration is not under suspension or cancellation.

Inspection

41. Inspection for accreditation and approval of chiropractic colleges is carried out by examination of calendars, curricula (subjects, hours), faculty and staff, physical plant facilities, and administration.

42. Continuing approval of colleges is contingent upon maintenance of the required standards and requirements; official notification is made of any deficiencies, and appropriate correction is required.

Investigations

43. Investigators are employed by the Board to ensure strict compliance with the Act and regulations.

Liaison

44. In the course of carrying out its control of the chiropractic profession in Ontario by administration of the Act and regulations, the Board's activities embrace the work of liaison and active co-operation with the various chiropractic associations, other professional and regulatory organizations in the health field, the Workmen's Compensation Board and insurance companies.

45. The responsibilities and functions of this Board, as outlined briefly above, indicates that the profession is regulated and controlled in the public interest.

RELATED LEGISLATION

The Workmen's Compensation Act (RSO 1960, Chapter 437)

46. In Ontario, most industrial and commercial enterprises come under the authority of The Workmen's Compensation Board. Workmen in these establishments who are accidentally injured at work are entitled to treatment for the injury, and have initial choice of doctor. Chiropractors are included under these terms by Section 51 (1) & (2) of The Workmen's Compensation Act (RSO 1960, Chapter 437).

47. Where an industry maintains first aid facilities or a medical department and the workman is given emergency treatment, the workman may still exercise his right of requesting chiropractic service.

48. Chiropractors diagnose and treat accidental injuries. Reports covering the history and examination, radiological findings, diagnosis, prognosis and treatment, progress reports and accounts are submitted to the Board.

49. Types of injuries treated for the Board include care of various kinds of spinal injuries, and strains and sprains affecting the neuro-musculo-skeletal systems.

50. Chiropractors may treat an injured workman for 14 calendar days without prior authority from the Board. When, in the opinion of the chiropractor the treatment period must be extended beyond fourteen days, request for extension of treatment time is made to the medical aid section of the Board. This department may grant or reject permission to continue treatment.

51. The Board assumes responsibility for treatment of injuries of accidental origin and their complications, but not for care of co-existing or pre-existing conditions.

52. It is our considered opinion that the financial and time loss benefits resulting from chiropractic services to Ontario workmen would be substantially in agreement with the following comparative statistics:- (From "Research in Health & Industry" EXHIBIT 23)

	(1) Average work days lost per case	(2) Average wage lost to the workman	(3) Average cost professional care per case	(4) Average compensation paid per case
Chiropractic	10.89	55.42	27.88	27.06
Osteopathy	11.50	76.06	29.85	35.46
Medical, Non-hospitalized	19.88	95.06	27.07	50.06
Medical, hospitalized	33.83	163.44	121.45	85.34

The above table represents an analysis of 4,746 low back cases involving strains and sprains only - surgical cases, high level falls and crushing injuries and the like were not included. These were compiled from official records of State Boards of Workmen's Compensation in the following States, and for the periods shown:-

Arkansas . . . . . .1945 - 48
Iowa . . . . . 1946 - 48
Kansas . . . . . .1945 - 48
Kentucky . . . . . .1940 - 49
New Mexico . . . . .1948 - 49

53. Based on annual payments by the Workmen's Compensation Board of Ontario for chiropractic services (excluding x-rays), an increase of 308.8% in the period 1954-60 gives an indication of the increasing value of chiropractic to Ontario's injured workmen, industry and the Board. The use of these services has continued to increase each year since 1960.

54. The same trend is apparent in other provinces. For example, in British Columbia from 1951 to 1959, there was a 225% increase in the number of compensation claims treated by chiropractors.

55. Statistics are also available from a study of the records of the Florida Industrial Commission for the year 1956. Sprains and strains of the spine in 19,666 cases were reviewed and the findings checked by the First Research Corporation, a nationally recognized and independent research organization. Details of the study are available to the committee in EXHIBIT #3, entitled, "A Survey and Analysis of the Treatment of Sprain and Strain Injuries in Industrial Cases". Suffice it to say here that the heading of "Significance of the Major Findings", the report points out that:

(a) In sprain and strain cases handled by physicians treatment costs were 27.5% highes than in those handled by a chiropractor.

(b) Compensation costs under a physician's care were 311% more.

(c) Combined treatment and compensation costs were 70% more.

(d) When medical specialists were called in for cases of comparable types and severity, treatment costs were 247% higher, compensation costs were 15 times as great, and combined treatment and compensation costs were more than 5 times as great.

(e) Time lost from work by the patients was 3 days under chiropractic care, compared to 9 days under a physician's care. When under the care of a medical specialist the patient lost 30 days from work, compared to 2.5 under chiropractic care.

(f) The incidence of sprain and strain injuries, according to the survey, increased from 1949 through 1956 by 152%, while the cost of treating these injuries in the same time period showed an increase of 396%.

56. The importance of including chiropractors' services in health insurance plans is emphasized by such statistics. The contribution that can be made to industry, to those underwriting the cost of the plans and to the patient, by reducing time-loss and treatment costs in one of the most common of industrial and household accidents is quite obvious.

57. Fees paid by the Board for chiropractic services are the same as paid to physicians. Currently office visits are paid at the rate of $3.50, house calls at $5.00 plus mileage, and x-ray services are paid according to a separate schedule of fees. Workmen's Compensation Board regulations provide that no charge whatever may be made to the patient.

58. Fees paid by the Board are below the average standard fee charged for similar services to private patients, and no consideration is given for the correspondence and many reports involved and required.

59. Doctors of chiropractic are allotted a permanent account number, and services credited from approved claims are paid by cheque monthly.

60. Sole authority for coverage under Workmen's Compensation Board provisions rests with the Board. The onus is placed on the chiropractor to render effective and efficient service within Board treatment provisions. Proof of accidental injury must be established by the workman and/or his employer. Ultimate financial responsibility rests with the injured workman if his claim is disallowed. Therefore, an injured workman may present himself for treatment and care with the proper request form for treatment, numbered claim forms may be received from the Board, treatment rendered, x-rays and reports submitted to the Board, and the Board may then subsequently disallow the claim.

61. The profession considers that certain inadequacies and inequities exist in compensation provisions. However, the profession enjoys friendly relations, active liaison and co-operation with the Board.

The Public Health Act (RSO 1960, Chapter 321)

62. This Act, Section 60 (1 and 3) requires that all practitioners of the healing arts report to the local medical officer of health within 12 hours all cases of known or suspected communicable disease. These reportable diseases are listed in Section 1(a) of this Act, and in the regulations (R.R.O. 505/60) made under this Act.

63. The doctor of chiropractic must receive permission to enter quarantined premises from the medical officer of health of the municipality in which the patient resides.

The Vital Statistics Act

64. Under the terms of this Act, chiropractors do not sign birth or death certificates.

The Venereal Diseases Prevention Act

65. Under the terms of this Act, chiropractors do not treat cases of venereal disease.

Miscellaneous:-

66. A study of the Ontario Municipal Health Service Act, Vaccination Act, Chiropody (Podiatry) Act, Nurses Registration Act, Optometry Act, Pharmacy Act, Dentistry Act, and Medical Act does not reveal any apparent conflict with Ontario Legislation relating to the system of treatment followed by the chiropractor.

PROFESSIONAL ORGANIZATIONS

67. Chiropractors in the Province of Ontario have available to them a number of chiropractic organizations to which they may belong, in order to keep abreast of professional advances. The services and activities of these organizations range from public service programs to professional seminars.

THE CANADIAN CHIROPRACTIC ASSOCIATION

68. This Association is chartered by the Federal Government, and represents the entire profession in Canada. Ontario is represented on the directorate by three chiropractors elected by and from the membership of the Ontario Chiropractic Association. A further number of Ontario chiropractors serve on the numerous Canadian Chiropractic Association committees which carry out the varied projects of the Association.

69. Seven Provincial Divisions of the C.C.A. represent all provinces of Canada (the Maritime Provinces being joined in the Maritime Division). The Ontario Chiropractic Association is the largest of these divisions. The head office of the C.C.A. is located at 252 Bloor Street, West, Toronto 5, Ontario. It is not our intention to include a full report on the affairs of the C.C.A. in this presentation, as details are available to the committee in our brief to Canada's Royal Commission on Health Services. One project which was brought to fruition this year will, however, be of interest to you. We refer here to the establishment of a National Examining Board which will qualify successful candidates to apply for a license to practice in other provinces. This is a significant step in our program of providing and maintaining a uniformly high standard of care across Canada. The examinations were approved by a Canadian university and the first such examinations were held in July of this year. Provincial examinations, under provincial licensing boards must still be written by those who do not apply to write the national examinations, and those who are successful in passing the national examinations must still satisfy the provincial boards with regard to any other qualifications which must be met prior to being granted a license to practise in a particular province.

THE ONTARIO CHIROPRACTIC ASSOCIATION

70. The Ontario Chiropractic Association is chartered under The Companies Act of Ontario, with letters Patent dated January 14th, 1929. It is the largest of the autonomous Provincial Divisions of The Canadian Chiropractic Association.

71. The aims and objects include the advancement of the science of chiropractic and the promotion and welfare of those engaged in its practice.

72. Membership is open to all Ontario chiropractors.

73. This active organization is the professional voice of chiropractic in this Province.

74. The executive is elected annually for a one year term, and consists of Immediate Past-President, President, 1st and 2nd Vice-Presidents, Secretary-Treasurer and seven directors. (At the annual business meeting this year, the members approved the system

74. (continued)

of electing twelve directors for a two year term, with six being eligible for re-election each year. The directors will elect the executive officers for one year terms. This proposal has been passed by the association and has been reported to the Lieutenant-Governor in Council for approval).

75. The office of the Association is located at 252 Bloor Street, West, Toronto 5.

Activities:-

76. The Ontario Chiropractic Association presents an annual 3-day convention and clinical conference each September, at which outstanding speakers and college lecturers appear. During the convention, the business of the Association is transacted, reports from its various committees are discussed, and free discussion of professional matters is encouraged.

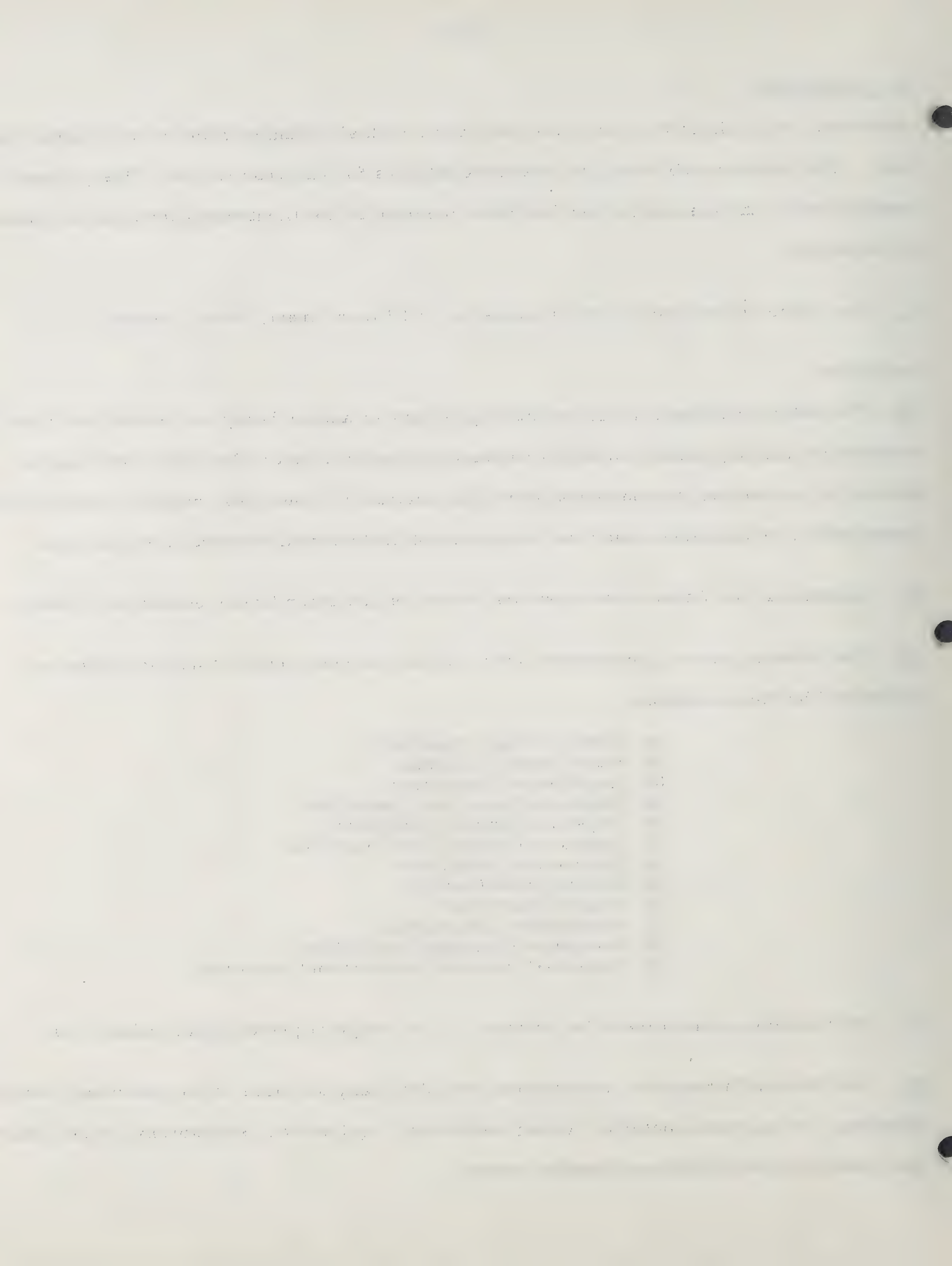
77. In addition, the Association sponsors seminars and other timely educational studies.

78. The following active committees carry out the various programs and activities as authorized by the executive:-

(a) Membership Committee
(b) Inter-Council Liaison
(c) Legislative Committee
(d) Industrial Relations Committee
(e) Physical Fitness Committee
(f) Ethics and Discipline Committee
(g) Convention Committee
(h) Credit Union Liaison
(i) Budget Committee
(j) Resolutions Committee
(k) Insurance Relations Committee
(l) Industrial Accident Prevention Committee

79. The foregoing committee titles indicate a wide range of professional endeavours.

80. The Ontario Chiropractic Association provides many services to the individual member, including:- educational material, group insurance, legal advice, sponsorship of the Ontario Chiropractic Credit Union and location advice.



81. The Association initiates and carries out valuable services relating to health, including:-

Postural Education Programs

Physical Fitness Program

Special Industrial Accident Prevention surveys and reports

Health information exhibits

Vocational guidance information.

82. Other avenues of service include Workmen's Compensation Board and insurance company liaison, and co-operation with the Department of Health radiation survey.

83. Membership in the Association is voluntary, and the current annual dues of $100.00 also includes membership in the Canadian Chiropractic Association and the Canadian Memorial Chiropractic College.

84. The presentation of this brief is another example of the desire of the Ontario Chiropractic Association to contribute to public understanding and the health needs of citizens of this Province.

DISTRICT COUNCILS

85. At the local area level, chiropractors are organized into district chiropractic councils. These councils function as a part of the Ontario Chiropractic Association and thus ultimately of the Canadian Chiropractic Association.

86. The following councils hold regular meetings in their respective areas:-

Niagara District Chiropractic Council

Hamilton & District Chiropractic Council

York-Peel Chiropractic Council

Mid-Eastern Chiropractic Council

Ottawa Valley Chiropractic Council

Northern Ontario Chiropractic Council

Mid-Huron Chiropractic Council

Waterloo-Wellington Chiropractic Council

86. (continued)

Simcoe Chiropractic Council

Mid-Western Chiropractic Council

Essex County Chiropractic Council

87. These district councils encourage the exchange of ideas, mutual co-operation, professional education and public service projects.

CANADIAN COUNCIL OF CHIROPRACTIC ROENTGENOLOGY

88. This Council is a division of the Canadian Chiropractic Association, and has provincial sections in Ontario and other Provinces.

89. Due to the importance of the use of X-ray in the practice of chiropractic, this council is responsible for maintaining and elevating the standards of X-ray within the profession and the establishment of adequate standards of protection from radiation hazards for the public and the members of the profession.

90. The Canadian Council of Chiropractic Roentgenology (C.C.C.R.) has recently become a Council of the Canadian Chiropractic Association. The necessary steps for the amendment of the by-laws of the association, to provide for this affiliation, are currently underway. This Council is composed of those members of the chiropractic profession in Canada, who make use of X-rays for diagnostic purposes in the practice of chiropractic.

Among the aims and objects of the Council are:-

(a) To promote, protect and further the scope of the science of roentgenology within the chiropractic profession.

(b) To promote the formation of, to assist, to guide and to encourage, divisions of the C.C.C.R.

(c) To facilitate the exchange of information and ideas on matters affecting the science and practice of roentgenology or its application.

(d) To promote and provide for the carrying out of research and experimental work in connection with roentgenology and allied subjects and to make, institute and establish grants or rewards in connection therewith.

90. (continued)

(e) If deemed advisable and in the best interests of the Council, the C.C.C.R. will associate, affiliate and federate with any association or organization with objects the same, as, or similar to, those of the Council.

(f) All or any profits of the Council shall be used in the promotion of its objects and no pecuniary gain will be accrued by its members or directors.

(g) The C.C.C.R. will act in co-operation with the Federal Government (Department of National Health and Welfare, X-ray Division) in matters dealing with roentgenology, its science and application and allied subjects.

(h) The C.C.C.R. will be responsible for setting a standard of roentgenology, its science and application, for its members.

USE OF X-RAYS IN CHIROPRACTIC PRACTICE

91. The use of X-ray forms an important part in the practice of chiropractic, by reason of the fact that radiographs indicate areas of structural deviations, subluxations and suspected nerve interference, and thus are of great assistance in determining the nature of the precise correction that must be made. Of equal importance is the information obtained that assists in determining conditions which would contra-indicate chiropractic care. In such case, the patient is referred to the appropriate practitioner of another healing art.

92. The existing facilities for the production of radiographs, the extent of use of X-ray equipment, the awareness of the hazards of ionizing radiation, and the co-operation of the chiropractic profession with the Ontario Department of Health are outlined in the interim report on the Survey of the Use of Ionizing Radiation conducted in March, 1960, by the Honourable Matthew B. Dymond, Minister of Health for Ontario. (EXHIBIT #4) A similar survey is currently being undertaken in other provinces by the Canadian Council of Chiropractic Roentgenology.

93. The results of a 1961 survey by the Association, indicate that there were approximately 450 X-ray machines in use by chiropractors in Canada. Those chiropractors who do not own X-ray machines have X-ray facilities available through the co-operation of nearby chiropractors.

94. Thus it is shown that most citizens of Canada who seek chiropractic care are provided with the benefit of X-ray examination preceding and during treatment. Comprehensive pre-employment X-ray studies are being carried out for the purpose of screening potential heavy industry employees to detect structural defects which may predispose to injury during employment.

95. In the training of chiropractic students, 198 hours of instruction are provided by the Canadian Memorial Chiropractic College in all phases of radiography, and 576 hours of clinic practice are provided wherein the student applies his training before graduation. As additional post graduate training, the Canadian Council of Chiropractic Roentgenology provides an annual symposium to which guest lecturers are brought from Canada and the U.S.A. to teach and instruct graduate chiropractors in the art and science of radiography. These symposia have been conducted each year since 1951.

96. Post graduate courses are conducted at intervals at the Canadian Memorial Chiropractic College by the heads of the X-ray departments of chiropractic colleges in the United States. Thus, every attempt is made to provide facilities for graduate studies in the field of radiology for the chiropractors of Canada.

97. All chiropractors using X-ray apparatus in their offices are made fully aware of the dangers of the use of ionizing radiation (both to themselves and their patients and staff.) The summary of a recent survey of exposure dose received by the chiropractors of Canada who use X-ray machines as recorded by the film monitors of the Department of National Health and Welfare and signed by S.K. Ghosh, Ph.D., Physicist, Radiation Protection Division, Department of National Health and Welfare, Ottawa, Ontario, Canada, shows that none of the chiropractors of Canada concerned with the survey, received more than 25% of the maximum permissible dose during the period of survey.

98. X-ray examination is employed by the chiropractor for the prime purpose of determining the presence of structural disrelationships concerning the spine and pelvis of the patient under examination. These radiographic studies also provide invaluable information in all aspects of posture both in the antero-posterior and lateral projections. X-ray examination is also used to determine areas of immobility, or fixation, which occur throughout the length of the spine and in the pelvis. In such manner, chiropractic treatment is based upon X-ray findings.

99. The work of the chiropractor in the field of radiography is not confined to the spine and pelvis, however. Many occasions demand X-ray investigation of suspected fractures and dislocations occasioned by automobile, industrial and athletic accidents. Workmen's Compensation Boards and insurance companies pay for such examinations conducted by the chiropractor. Further, X-ray examination is a necessary function on the part of the chiropractor in the determination of various pathologies detrimental to the health of the patient.

100. It is anticipated that in the future, every chiropractor will employ X-ray in his daily practice. The upgrading of knowledge within this field is a never ending process. Thus, it is shown that the members of the chiropractic profession are increasingly competent to provide a comprehensive overall health service for the citizens of Canada.

CANADIAN MEMORIAL CHIROPRACTIC COLLEGE

101. This professionally owned, non-profit educational institution of higher learning was chartered in 1945, and is located at 252 Bloor Street, West, Toronto 5, Ontario.

102. It is the centre of chiropractic education in Canada and over 700 chiropractors have been graduated from this college. It is not our intention here to provide a complete report on the affairs of this institution, however, this information is available to members of the committee through the brief to Canada's Royal Commission on Health Services (EXHIBIT #1).

103. It will be of interest to you, however, to know that students from many lands come to Toronto to study at the Canadian Memorial Chiropractic College and our graduates are now practising in Britain, United States, Germany, France, Denmark, Switzerland, South Africa, Australia, South America. A guidance monograph published by the Guidance Centre of the University of Toronto is entered as APPENDIX 1. We recently received permission to translate this monograph into the French language for use in Quebec and Europe. (APPENDIX #2).

104. The course of study is four years in length, with nine months in each year. This is the equivalent of about five years in some university courses since the academic year in many cases is seven months rather than nine. The course of study is outlined in the college calendar, entered as EXHIBIT #5.

105. The Canadian Memorial Chiropractic Clinic provides out-patient services to residents of the Metropolitan Toronto area. The diagnostic and consultant facilities of this Clinic are used regularly by local chiropractors. It also offers province-wide problem case referral, laboratory examination services.

106. Additional benefits to Ontario residents are provided through public lectures, health publications, information and vocational guidance services.

107. Graduates of the College may belong to the Canadian Memorial Chiropractic College Alumni Association, which promotes interest in the College.

108. The scope and fields of endeavour of these professional organizations as outlined above indicate the existence of well-established lines of communication for professional co-operation, and an awareness of the responsibilities expected of a mature profession.

CHIROPRACTIC PRACTICE IN ONTARIO

109. In the Province of Ontario, the chiropractor is licensed to practice his profession within the limitations prescribed by law. Detailed in a previous section of this Brief is the jurisdiction and control of the practice of chiropractic by the Ontario Department of Health.

110. Presently, doctors of chiropractic stand third to doctors of medicine and doctors of dental surgery so far as numerical strength of qualified, registered, practitioners is concerned. The place of the chiropractor, as a member of a distinct and specialized branch of healing, is well established.

111. This separate and important branch of the healing art, through continuing utilization, has become an integral part of the essential health services of the Province. Any restriction to the availability of chiropractic services would be to the detriment of the health and welfare of the citizenry. A majority of the public has come to expect the availability of chiropractic services as one of their basic rights. Many citizens have expressed their desire to have the legal right to obtain chiropractic services under any government sponsored health insurance plan. Thousands, by their signatures have expressed their convictions in this respect.

112. The legislative terminology delineating the system of treatment followed by the chiropractor has been recorded in the Chiropractic Legislation section paragraphs 36, 37, 38 of this Brief.

113. The chiropractic profession endorses the World Health Organization definition that "Health is a state of physical, mental and social well-being and not merely the absence of disease and infirmity."

114. Joseph Janse, D.C., President - National College of Chiropractic, Chicago, Ill., in his book, "Chiropractic Principles and Technic", second edition, points out that the philosophy underlying chiropractic is summed up in five principles:-

(a) That a vertebra may become subluxated.

(b) That this subluxation tends to impingement of the structures (nerves, blood vessels and lymphatics) passing through the intervertebral foramina.

(c) That, as a result of such impingement, the function of the corresponding segment of the spinal cord and its connectiong spinal and autonomic nerves is interfered with and the conduction of the nerve impulses impaired.

114. (continued)

(d) That, as a result thereof, the innervation to certain parts of the organism is abnormally altered and such parts become functionally or organically diseased or predisposed to disease.

(e) That adjustment of a subluxated vertebrae removes the impingement of the structures passing through the intervertebral foramina thereby restoring to diseased parts their normal innervation and rehabilitationg them functionally and organically.

115. Basically, the chiropractor's interest is in the mechnical integrity of the human musculo-skeletal system and its relationship to neurological and physiological processes expressed in health or disease. Stated in other terms, chiropractic is one of the sciences, the science whose field of enquiry is the relation of certain structural defects (particularly of the human vertebral column and pelvis) to functional disturbances and possible pathogenesis. Chiropractors are interested in applying the findings of this science to the solution of problems in the sphere of health. Such a neuro-mechanical approach thus requires that major consideration be given to the nervous system and the spinal column.

116. Chiropractic is defined as:- "The philosophy, science and art of locating, correcting and adjusting the interference with nerve transmission and expression in the spinal column and other articulations without the use of drugs or surgery". On the one hand, the art of chiropractic is concerned largely with the physical dexterity and skill necessary for the locating and correcting of structural disrelationships. On the other hand, the philosophy and science of chiropractic are concerned chiefly with the reasoning and investigation necessary in determining the underlying factors for the maintenance of health, or the amelioration of disease. But since man is not an isolated organism, the total approach of chiropractic includes consideration of heredity, environment and mental attitudes.

117. The largest single area of interest is conditions which involve the spinal column. These include postural, mechanical, traumatic and structural conditions such as misalignment, sacro-iliac slip and disc lesions, affecting the structural and physiologic integrity of the spinal column and nervous system. Spinal misalignments and derangements (subluxation, fixation) are productive of irritation or pressure, causing backache, neuritis and neuralgia. The various symptom complexes referred to as cephalalgia, occipito-cervical neuritis and neuralgia, torticollis, cervical and brachial neuritis or neuralgia, radiculitis, intercostal neuritis or neuralgia, lumbago and sciatic neuritis, may follow. These, and affectations of the other articulations of the human body make up the generic grouping commonly classified as neuro-musculo-skeletal in nature or origin.

118. The nervous system enables the human body to react to its environment; it controls and regulates the activities of all the other systems (musculo-skeletal, respiratory, gastro-intestinal, urogenital, endocrine and circulatory) and related tissues. Every part of every organ is connected by nerves, either directly or indirectly, with the nerve centres of the spinal cord and brain stem. Every function in the human body depends ultimately upon the integrity of the nervous system. Anatomical disrelation at the spinal column interferes with the generation, transmission, distribution or expression of nerve impulses. This can cause malfunction of tissues or organs at or distant from the spine.

119. Neurogenic involvement at the spinal column leads to many visceral conditions which respond favorably to chiropractic care. The application of chiropractic methods in the treatment of these conditions is equally rational, and more direct, than the injection or oral ingestion of drugs to affect distant viscera.

120. Many disease processes are caused by interference with nerve trunks in or at the spinal column, but manifest themselves at points in the body distant from the spine. Familiar examples of disease processes expressing themselves at locations distant from the site of pathology include:- referred pain from cholecystitis (inflammation of the gall bladder) felt in the right shoulder, and paralysis of a limb resulting from a cerebral hemorrhage (stroke). Similarly, displacements of vertebral segments can cause pressure

120. (continued)

or irritation upon nerve roots with little or no pain felt at the spine, yet may result in disease or distress in areas or organs distant from the spinal column.

121. In addition to the control of organs, the nervous system controls blood vessels, glands and their chemical secretions. Therefore chiropractic is effective in conditions having a neuro-chemical or neuro-circulatory significance and background.

122. Further, when casued by nerve interference, abnormal conditions of various parts of the body respond favorably to chiropractic methods.

123. Constant nerve irritation at the spine (which may or may not cause localized pain) lowers the tolerance threshold to fatigue, tension, fear and worry, and also the many provoking situations which occur in modern living. The actual physically decreased nervous control impairs the ability to cope with ordinary situations. The increased irritability, depression, lack of confidence, inability to concentrate or relax, and the other manifestations of "nervousness" are very real. These symptoms frequently respond to chiropractic care when the nerve irritation is removed.

124. While chiropractic methods are not precluded by the location of an organ, the chiropractor must consider the limitations of his therapy. Chiropractic is not a cure-all. Restoration of health by chiropractic methods is dependant upon correction of anatomical disrelationships and restoration of neurologic control. One who has studied and practiced chiropractic is more competent to give an intelligent and scientific opinion on chiropractic and to say what it can or can not do.

125. The training of a chiropractor not only enables him to recognize conditions which can be helped by chiropractic care, but also to recognize those which require other forms of treatment. Because he is interested in the greatest good for the patient, he will refer non-chiropractic cases to other competent practitioners in the various branches of the healing field.

126. Limitations and restrictions to the practice of chiropractic are those inherent within the science, and in addition, those imposed by legislation and those economic factors largely the result of the comparative newness of the profession.

127. Chiropractic is a separate and distinct healing art, but comes under the general term of "medicine" when that term is used in the broadest sense encompassing all healing. Chiropractic is not the practice of medicine in that restricted sense of describing a particular system of healing.

128. The science of chiropractic does not include the use of drugs, surgery, ionizing radiation for other than diagnostic purposes, the practice of midwifery or the reduction of fractures, or dislocations requiring surgical reduction.

129. The restrictions imposed by law on the practice of chiropractic have been outlined previously in paragraphs 37, 62, 63, 64 and 65.

130. Chiropractors are denied the use of tax-supported institutions such as provincial laboratories, hospitals and other institutions. These restrictions preclude the receipt of information usually obtained through the more extensive diagnostic procedures. However, the chiropractor provides those diagnostic facilities possible in an office or clinic type practice. The treatment, special appliances and nursing facilities essential to the care of certain types of cases are also generally not available under these conditions. The hospitalized patient is not permitted chiropractic services.

131. Chiropractic is contraindicated in those cases in which faulty structure cannot be corrected without hazard. Chiropractic is limited where there is nerve degeneration, and where the extent and progression of disease has become an irreversible pathologic entity. Other limiting factors are those related to heredity and congenital conditions. But, one who has studied and practiced chiropractic is best qualified to give a professional opinion on those conditions which are amendable to this science. Despite the foregoing restrictions, chiropractice is not a limited therapy in the same sense as are the specialties of optometry,

131. (continued)

podiatry and dentistry. In common with all those engaged in the healing art, the chiropractor requires the active co-operation of the patient.

Facilities:-

132. Usually, the chiropractic profession serves the public from individual offices, while a small number carry on a group or clinic type of practice. The Canadian Memorial Chiropractic College Clinic in Toronto is the largest chiropractic clinic facility in Ontario.

133. Most areas of the province are within a reasonable distance of a chiropractic office.

134. The majority of patients receive care in these offices, while house calls are made for those confined to their homes.

135. A typical chiropractic office is conveniently located, suitably appointed and staffed. Adequate space is provided for a reception area, examination and treatment rooms.

136. Since chiropractors are excluded from the use of public facilities and equipment, it is obligatory that they themselves provide many of these services for their patients.

137. In addition to standard office diagnostic equipment, the chiropractor provides facilities in accordance with the needs of his type of practice. Some of this additional equipment includes diagnostic x-ray, heart and circulatory evaluation devices, and blood and urine test apparatus. In addition, there is special diagnostic and analytical equipment concerned with structural, postural and neurologic efficiency.

138. In order to render competent and efficient chiropractic services, the offices are furnished with specially designed chiropractic adjusting tables. These precision-built tables range up to complex, multi-position electric or hydraulic models, comparable to intricate and costly hospital operating tables. Compact and less complex models are available for house calls.

139. A number of offices are equipped with physio-therapeutic devices such as ultra-violet, infra-red, diathermy, ultra-sound, or low voltage generators for adjunctive therapy.

140. Furnishings and equipment required for a chiropractical office necessitates an investment ranging from $3,500 to in excess of $15,000 for an elaborate installation, with an average investment of about $7,000. In addition, for emergency and house call use, an automobile must be available.

Services Rendered:-

141. Chiropractic services serve and are utilized by a cross section of all socio-economic levels.

142. The majority of patients selecting chiropractic care for their particular health needs do so because of previous knowledge of the benefits of such methods. This knowledge may be the result of previous personal experience, the recommendation of family, friends and acquaintances. Many patients are referred from industry and commerce by employers, supervisory personnel, industrial nurses and first-aid attendants, either as private or compensation patients. Chiropractors treat many members of the nursing profession, and, on occasion, physicians avail themselves of chiropractic adjustments. Injured athletes are referred by team managers and coaches. Victims of automobile and other accidents are often referred for care by insurance adjusters. Chiropractors consult with one another, and frequently refer to one another for the benefit of the patient. Members of other branches of the healing arts recommended chiropractic services, when in their opinion such treatment may be indicated. A small number of patients is referred personally by physicians or surgeons, while a larger number consult a chiropractor on the recommendation or approval of a physician. However, it must be pointed out that the usual interpretation of the medical code of ethics prohibits professional and social relations between the members of the two professions. Under such circumstances, most medical referrals are in confidence, the welfare of the patient being the greater concern. Since the chiropractic code of ethics demands that the interest of the patient comes first, many more patients are referred by chiropractors to physicians, than the reverse. Co-operation between these two professions leaves much to be desired, and the patient who would be helped by chiropractic care is often dissuaded from seeking the help he needs. But, in recent years, chiropractors have been

142. (continued)

encouraged by increasing grass roots co-operation, in spite of the fact that at the official level there remains the unyielding policy directed by radical politics and economics.

143. A wide variety of conditions is treated in the average chiropractic office. Among these are neuro-musculo-skeletal conditions arising out of industrial, occupational, home, athletic and sporting activities. Compared with injuries, the percentage of diseases treated in chiropractic offices varies greatly - ranging from 10% to 50% of the total practice load. These are those acute and chronic disease entities and syndromes included in general classification of functional, organic or psychosomatic. The chiropractic approach and treatment of injury or disease is the location and correction of the underlying nerve involvement.

144. Preventive care by the maintenance of normal structure and function is of great importance to the well-being of the individual, and forms an essential and important part of chiropractic practice. Included in this prophylactic service is the assessment and treatment of faulty posture and postural distortions, and recommendations for occupational and recreational posture and body use. Advice is given on correct application of stresses to the body by proper body usage, and the overall relation of physical fitness to the maintenance of a high level of body resistance, and general physical and mental well being.

145. Many families place their chiropractor in the role of family doctor and adviser.

146. Following initial consultation some people are not accepted as patients, but on assessment of their health problem they are given advice or referred elsewhere for care. Such consultation, examination, assessing, professional advice and reporting is time consuming, but a useful and necessary part of the chiropractor's service.

147. Chiropractic treatment is directed toward the correction of subluxations and fixations in the human body, more particularly those in the spinal column. These articular dysfunctions have a neuropathogenic connotation. The chiropractic adjustment is a manual correction of structural disrelationship.

148. In Ontario, chiropractors may, in addition to the adjustment, use other therapeutic, relaxing and supporting therapies. These ancillary measures may include the use of exercise (remedial and traction), light (ultra-violet), thermotherapy and hydrotherapy (baths, hot & cold packs, infra-red), electro therapy (diathermy, low volt generators, ultra-sound), dietary advice, nutritional supplementation, belts, taping, supports and counselling.

Economic Aspects

149. A majority of all patients seeking help from a chiropractor do so as private patients, and pay their own accounts. The method of payment varies, and may include payment at the time service is rendered, following receipt of monthly statement, at completion of services, or occasionally by prepayment. Uncollectable accounts may range as high as 3-8% of the accounts receivable; tardy settlement of accounts and uncollectable accounts probably compare with the average percentage for the other branches of the healing arts.

150. Services rendered for the Workmen's Compensation Board has been outlined in paragraphs 46 - 61 together with an opinion as to the shortcomings of this procedure.

151. Most Canadian and American insurance companies pay for chiropractic service rendered for their policyholders.

152. Insurance coverage may be by group health and accident policies for industries, fraternal orders, schools and other organizations. Other patients are protected by individual health and accident policies. Some insurance contracts cover the policyholder only, while others also cover his immediate family. Under these plans, payment may be made directly to the patient, or in some cases, the patient may elect to assign the benefits payable directly to the chiropractor. Under other policies, direct payment is made.

153. Payment coverage varies in accordance with the terms of the policy. The most common provisions or combination of methods are:-

(a) Full financial coverage, including all charges for diagnostic and treatment procedures.

153. (continued)

(b) Financial coverage for all services rendered up to a stipulated maximum.

(c) Deterrent clauses requiring the patient to pay for the first visit or call.

(d) Deductible provisions with the patient responsible for the first $25, $50, or 20%.

(e) Provision for a specific maximum number of visits in any one policy year, with a stipulated maximum amount allowed per visit.

(f) Settlement of claims in a few instances is restricted to certain diseases or injuries, and occasionally on an individual claim basis. Some policies require that chiropractic services be rendered by an Association member.

(g) Some policies have restricted coverage by stating that chiropractic service is available "only if the insured person is referred to a chiropractor by a physician or surgeon" - as quoted from page 37 of "Your Surgical - Medical Insurance Plan" explaining the group surgical medical insurance plans for employees in the public service of Canada.

154. Financial responsibility for treatment of accident victims is frequently covered under the various automobile and liability insurance policies. Payment of these accounts is frequently delayed following treatment and reports while awaiting insurance companies and their adjusting procedures, barristers and solicitors and courts of law.

155. Many athletic teams, clubs or associations accept responsibility for treatment costs for athletic injuries by direct payment or insurance coverage.

156. The chiropractic profession enjoys excellent relations with most private insurance carriers.

157. Both individual and group insurance plans provided by insurance carriers are meeting an economic need for many citizens.

158. Some insurance companies name and include chiropractic care, while others include the services of a chiropractor by interpreting and applying "doctor", "physician", "medical practitioner" in the broad sense of one licensed to provide health services. As an example, the explanatory booklet for a group plan (E.B.Eddy Co.) underwritten by the Metropolitan Life Insurance Company states under the section on major medical expense benefits that non-hospital expenses include:- "Services of physicians or surgeons, including specialists - in a hospital or elsewhere. Also services of licensed chiropractors and osteopaths . . ."

159. Another type of coverage is provided through participation and agreement of the Ontario Chiropractic Association and a co-operative group in co-operative services organization plans. These plans have a deterrent provision and payment is made monthly by way of a percentage of the accounts submitted against a previously agreed upon base figure for all services. In effect, the Ontario Chiropractic Association contracts to provide, through its members, all necessary chiropractic services to members of the co-operative plan for an agreed upon lump sum and at a reduced rate to compensate for administrative costs.

160. The Co-operative Medical Services Federation of Ontario began including chiropractors' services in their health benefits in January, 1963. Since that date, six of the thirty county co-op's have added this benefit and others are showing interest in providing this service.

161. On July 18, 1963, it was announced that the American Federation of Government Employees and their dependents will now be able to receive chiropractic care under the terms of a new health insurance plan underwritten by the Travelers Insurance Company.

162. On September 27, 1963, it was announced that, effective September 1st, 1963, for new plans, and January 1, 1964 for most existing plans, the group division of Aetna Life Affiliated Companies will include chiropractors' services under major medical and comprehensive medical insurance plans. Aetna had previously included chiropractic care under the provisions of their basic plan. This extension of coverage by Aetna is particularly significant since the Aetna Life Affiliated Companies form the second largest insurance group in the United States.

163. Insurance policies must now, by law, provide for the policy holder to have the right to attend a chiropractor under the provisions of any policy issued after January 1, 1964, in the State of New Mexico, U.S.A. The appropriate section of the Act (EXHIBIT #6) reads as follows:

> "Within the area of and limits of coverage offered an insured and selected by him in the application for insurance, the right of any person to exercise full freedom of choice, in the selection, of any hospital for hospital care as that term is hereinafter defined, or of any licensed practitioner of the healing arts for treatment of any illness or injury within his scope of practice, shall not be restricted under any new policy of sickness or accident insurance, contract or health plan issued after January 1, 1964, in this state or in the processing of any claim thereunder."

164. Restricted, privately owned and operated medical prepayment plans such as Physicians Service Inc. do not pay for chiropractic services. Many participants are unaware that the services of a chiropractor are not covered in these plans and this exclusion often creates frustration and unexpected financial problems.

165. The chiropractic profession assumes its fair share of social and gratuitous services ranging from group projects to indigent care at the individual level. In addition, many recipients of public assistance requiring chiropractic care are treated without charge. While a contract for medical care exists between the government and the Ontario Medical Association, this contract makes no provisions for the payment of chiropractic services.

166. In addition to the completion of routine insurance claim forms, the chiropractor is frequently called upon to provide detailed reports giving a professional opinion as to the extent of injury, disability and prognosis.

167. Chiropractors also appear as expert witnesses at county and Supreme Court of Ontario hearings.

Volume of Services:-

168. In the average chiropractic office, approximately 75 treatments are given per week. This is exclusive of house calls. The number of frequency of visits required varies with the duration and type of condition, its severity and the progress made. There is an average of 150 new patients per year.

169. The average fee per office visit is $4. This provides an approximate gross income of $12,000 to $15,000 per year. The range of gross income is $5,000 to $50,000 depending upon length of time the practice has been established, the location and facilities, the effort expended, and the local economy.

170. The current value of all services supplied by the chiropractic profession in Ontario, including gratuitous indigent services, is estimated to be $6,000,000 per year.

171. The average annual office operating expense is $5,000 and the range is from $3,000 to $12,000 depending on facilities and staff. Office expenses may be considered to be approximately 33% of gross income.

172. Dominion Bureau of Statistics figures relating exclusively to the members of the chiropractic profession are not kept by this government bureau, and are therefore not available. The estimated net income of the average chiropractor is $6,000 to $9,000 per year. The range of professional net income is estimated to be $3,000 to $25,000.

Fees for Professional Services:-

173. The usual method of charges is on a fee-for-service basis. The fee schedule attached as Appendix 3 has been approved by the Ontario Chiropractic Association in convention.

174. In those offices where taping, belts and nutrional supplements are supplied, an appropriate charge is made for such items provided.

175. In general, it may be stated that the fee charged is commensurate with the service rendered.

PUBLIC SERVICE PROJECTS

176. The members of our profession across Canada have participated in various public service projects with the view of improving preventive measures:

177. Good Posture Week in May, and Back to School Spinal Check-up Week in September - these projects are primarily for the purpose of impressing upon the people of Canada, the importance of good posture.

178. The need for projects such as these is clearly defined by this quotation from Doctors Meyerding and Pollock (The Lancet 1947 - Modern Conception of Backache,) both prominent members of the Mayo Clinic staff: "Poor posture, whether it is the result of bad habits or the result of organic defect, if maintained for a long time, will result in structural changes, lessened muscular tone and pulmonary inefficiency. Impaired oxygenation of the tissues and still further lowering of muscular tone, will establish a vicious circle, the results of which are lowered resistance to disease, predisposition to the occurrence of scoliosis, anemia, ill health and chronic backache. The importance of correcting minor faults in body mechanics in their early stages cannot be overemphasized. A survey of all school children of our large western cities, which was made a few years ago, disclosed that 35,000 had defects in their body mechanics, while only 8,000 had cardiac lesions. In one of our great universities, physical examination disclosed that only 20% of 2,200 students had normal spinal contour".

179. Lyman Johnston, Doctor of Chiropractic of Toronto, Director of Research at Canadian Memorial Chiropractic College, reports that research at the college has shown that in more than 600 cases, 67% of low back problems had been aggravated by improper posture.

180. While Correct Posture Week is basically a public information project, Back to School Spinal Check-up Week is an active endeavour by the profession, to improve the posture and physical fitness of our youth. During the week, chiropractors in their offices throughout Canada conduct spinal examinations of youngsters gratuitously. Statistics show that of the children examined, only 22% were entirely free of spinal abnormalities.

INDUSTRIAL ACCIDENT PREVENTION PROGRAM

181. It is apparent that a disproportionate number of industrial accidents involve strains and sprains to the spinal column and pelvis. In our opinion, this is due to the fact that workmen with undiscovered spinal weaknesses are frequently placed in jobs for which they are not physically capable and that many operations in industry are performed in such a manner as to handicap the workman involved.

182. As a result of a survey in one industrial plant, by the Ontario Chiropractic Association Industrial Accident Prevention Committee in 1957, several recommendations were made, which, it was felt, would enable the workers to utilize their bodies at a greater mechanical advantage, thus reducing the physical stress imposed upon the spine.

183. Prior to the adoption of these recommendations in the department surveyed, there occurred during 1957, 26 spinal injuries. Of these, six were lost-time accidents, resulting in 121 days lost. During 1958, after the recommendations had been implemented, there were only 6 spinal injuries, resulting in no lost-time accidents and no days lost. For the same period in 1959, there was a further reduction in injuries, down to 4, with only one lost-time accident.

184. The chiropractor is singularly qualified through training and experience, to assist industry in reducing accidents of the sprain and strain type involving the spinal column and pelvis and stands ready to render this most necessary service.

185. Evidence of the value of chiropractic care in industry, is indicated by the following statement by the Honourable Andrew J. Sordoni, President of 14 major corporations employing some 5,000 employees, President of a Medical Hospital in Wilkes-Barre, Pennsylvania, and former Senator of that State: "I, Andrew J. Sordoni, Chairman of the Board, Sordoni Enterprises, firmly believe there is a place in the sun for all of the healing arts and through personal experience have found chiropractic has won well deserved recognition and a position of leadership and respect among the health sciences.

186. "In our fourteen organizations, comprising 5000 employees, chiropractic treatments were introduced and made available to them twenty years ago. In the same manner preventive maintenance was employed with equipment, so too, has chiropractic become a form of preventive maintenance among our personnel, achieving a considerably lowered absenteeism due to illness and greatly increased employee efficiency. Serious illnesses have been overcome and lost time resulting from industrial injuries has been materially lessened in duration.

187. "In all of our Sordoni organizations, chiropractic treating rooms and facilities have been made available to our employees and they are encouraged to avail themselves of treatments provided by eight practitioners, twice weekly, during working hours. Additional treatment, if necessary, is also provided them at doctors' offices after working hours.

188. "The cost of chiropractic in our industry, has been paid for time and again, simply through increased employee efficiency, mental and physical.

189. "Co-ordination and co-operation between the health sciences is an absolute necessity. Only their correlation and a lay understanding and limitations of each will raise the ceiling of our present-day national health standards.

190. "Our Sordoni Enterprises have found chiropractic plays a major role in achieving and sustaining good health in our employee family." (EXHIBIT 7)

PHYSICAL FITNESS PROGRAM

191. The chiropractic profession is keenly interested in the field of physical fitness, with particular reference to body mechanics and posture, as such relate to this field. It is our opinion that there is great need for a program to improve the physical fitness of Canadians. We are particularly encouraged by the recent federal program to subsidize amateur athletics. In December, 1960, the Association submitted to all members of the Canadian Parliament, a brief, dealing with the position of the chiropractic profession, relating to physical fitness. A similar presentation was made to the Physical Fitness Study Committee of the Cntario Government, and Fitness and Recreational Officials of the Province of Saskatchewan.

192. Doctors of Chiropractic are fully aware of the importance of patient rehabilitation, and in fact, chiropractic treatment is directed not only to correct the patient's structural deviations, but also to return the patient to normal activities. In this respect, through training and experience in the field of body mechanics and posture, which exert such a vital force in the restoration and maintenance of health, the chiropractor is singularly qualified to counsel patients on postural habits, work habits and proper exercise.

RECOGNITION OF CHIROPRACTIC

193. The recognition of chiropractic as a separate and distinct health service not provided by other healing arts, and the value of chiropractic as a vital health service is evidenced in the following way:

(a) The Federal Charter granted to the Canadian Chiropractic Association by the Canadian Government in 1953.

(b) Provincial Legislation which legally recognized the profession of chiropractic was enacted in Alberta in 1923, Ontario 1925, British Columbia 1934, Manitoba 1945, Saskatchewan 1943, New Brunswick 1958.

(c) The Department of Veterans' Affairs paid for the tuition, text books and living allowances of 250 veterans returning to civilian life, for their 4-year course of study at theCanadian Memorial Chiropractic College, at a cost approaching one million dollars.

(d) The Department of Health of the Ontario Government has named the Canadian Memorial Chiropractic College as one of the colleges entitled to receive cadavers for dissection, an important aspect in the education of a Doctor of Chiropractic.

(e) Workmen's Compensation Boards in British Columbia, Alberta, Saskatchewan, Manitoba, Ontario and New Brunswick recognize the value of the services of chiropractors and provide for these services on a basis similar to the other major healing arts.

(f) Many health and accident societies and insurance companies in Canada recognize the value of chiropractic care and provide same for their policy holders. Numerous policy contracts specifically name chiropractic as one of the benefits

193. (f) (continued)

available, others interpret the term "Medical Care" in the broad sense encompassing all duly qualified health practitioners.

(g) Both the Dominion and Provincial Commands of the Canadian Legion have repeatedly passed resolutions urging the Federal Government to include chiropractic in health services of disabled veterans, which Canadian Legion Resolution, adopted unanimously in Edmonton, Alta., in 1958, reads (in part) as follows:

"NOW, THEREFORE, BE IT RESOLVED, since the methods of treatment developed by the chiropractic profession are now recognized as valuable discoveries in the field of therapeutics, and since it is established that the use of these methods has been a great benefit in the handling of conditions similar to those suffered by many veterans, and since the Canadian Government has already officially recognized the Canadian Memorial Chiropractic College and the Canadian Chiropractic Association,

THAT WE RECOMMEND that the Canadian Government or the branches of the Government concerned, take the necessary steps to provide:

Chiropractic treatment by qualified, licensed chiropractors for disabled veterans who desire such service, and who qualify for health care under government expense.

That the signing of civil servants' sick leave certificates by licensed chiropractors be given government approval."

(h) Expert testimony of chiropractors as to the diagnosis, treatment and prognosis of patient's conditions is accepted in Courts of Law.

(i) Fees paid for chiropractic services are deductible for income tax purposes.

(j) Chiropractic and athletics - Many professional and amateur teams in Canada regularly call upon chiropractors to keep their athletes in top shape and to restore those injured to playing condition.

Chiropractic is especially suited to this field, due to the high percentage of injuries of the bump or fall type, wherein realignment of osseous structure is

193. (j) (continued)

frequently required.

A recent survey in Canada determined that the chiropractic profession is being called upon to treat athletes of these teams - 68 professional - 111 amateur and 73 school. As instances, members of the following teams have utilized the services of chiropractors for athletic injuries:

Vancouver Canucks (hockey), Toronto Maple Leafs (baseball), Fergus (lacrosse), Hamilton Tiger Cats (football), British Columbia Lions (football), Brandon Greys (baseball), North Bay Trappers (hockey), Owen Sound Mercurys (hockey), Calgary Stampeders (football), Winnipeg Blue Bombers (football), Penticton Vees (hockey) and Ottawa Roughriders (football).

(k) A survey conducted in British Columbia in 1953, by the Sanders Marketing Research, commissioned to establish the public attitude towards chiropractic revealed that:

(1) 73% of British Columbians were in favour of a Government sponsored health care program.

(2) 59% of British Columbians stated that Doctors of Chiropractic should be permitted to treat patients in hospital.

(3) 74% of British Columbians were in favour of the provision of chiropractic care for old age pensioners.

(4) 70% of British Columbians were in favour of chiropractic inclusion under health and accident companies in the same category as medical care.

(5) 76% of British Columbians were in favour of the provision of chiropractic care in any National Health Insurance program.

(l) Another survey in 1955 conducted in British Columbia, by Market Research Associates, established that, of those polled:

(1) 83% were in favour of the provision of chiropractic care for Old Age Pensioners.

(2) 74% were in favour of the provision of chiropractic care in the policies offered by private health and accident insurance companies.

193. (l) (continued)

(3) 73% were in favour of the provision of chiropractic care in any National Health Plan.

(m) Mr. Percy Bengough, then acting President of the Trades and Labour Congress of Canada (at that time enjoying a membership of 264,375) on May 18th, 1943 (Hansard Proceedings page 331) presented a brief to the Special Committee of the House of Commons on Social Security in which he said that organized labour of Canada requested recognition of chiropractic treatment in the then proposed Bill entitled "The National Health Act." Reference was made to this statement in the presentation of the Dominion Council of Canadian Chiropractors as it was then known to the same Committee on June 4th, 1943. This was more than 20 years ago. Since then, the number of chiropractic practitioners has vastly increased. Keeping pace has also been an astounding expansion in education and educational requirements, research and legal and public recognition.

(n) Possibly the most significant indication of the value of chiropractic care is the demand for, and the utilization of the services of chiropractors. It is conservatively estimated that 40% of the people of Canada have utilized the services of chiropractors. In 1961 the number of Canadians seeking chiropractic care for the first time totalled approximately 300,000 and in that year approximately 3,700,000 chiropractic treatments were rendered by members of our profession across Canada.

(o) The Provinces of Alberta and Manitoba have recently enacted legislation which provides the services of chiropractors for recipients of health care under Pension and Social Welfare Legislation. Unfortunately, this is not so in other provinces, and, as a result, a hardship is imposed on these citizens, particularly so in the case of elder citizens for chiropractic care is effective in the field of geriatrics and is in great demand by our elderly people. Consequently, these people are compelled to pay directly for these services. The members of the chiropractic profession are well aware of the financial plight of these

193. (o) (continued)

Canadians and render chiropractic services at reduced fees, and in many cases, gratuitously, when the patient's financial situation so warrants.

MENTAL HEALTH

194. The services of chiropractors are not utilized in government health care programs for the mentally ill. Chiropractic offers an important and necessary contribution to the field of mental health. Many Canadians, on a private basis, have received benefit through chiropractic care for mental illness.

195. Chiropractic recognizes that man is a complete psycho-physical and sociological whole and that spinal subluxations not only cause physiological malfunctioning but can cause psychological malfunctioning as well; the reason being that neurological mediations penetrate the psychic field as well as the physical field. The truism of body and mind being one applies to the functioning of every part of the human body.

196. A great deal of emotional illness is due to nerve irritations caused by structural disrelationship. When spinal subluxations exist, the patient is under dual somatic and psychic stress. The adverse proprioceptive stimuli stemming from subluxated spinal segments, and stimuli from other areas in his body or environment, continue to bombard his sensorium and influence his emotions and mentation.

197. The corollary to the above is that mental distress, through nerve tension in interference, also reacts adversely upon the spine and can cause, perpetuate or aggravate the spinal subluxations and resultant nerve irritation.

198. Chiropractic care is then indicated, as it breaks up these cycles of reflex irritations from within the organism or from the environment and thus relieves many of the patient's visceral or emotional tensions. The following is offered as substantiative evidence:

(1) In 1952 a study of 58 patients classified as schizophrenic reaction types showed 70% socially restored under chiropractic care in a private chiropractic mental institution in the United States.

198. (continued)

(2) In this same institution in 1956, a follow-up study was made of all patients previously released. Of the patients who were reported back, 75% were schizophrenic in classification. Of these patients, after a lapse of a year, 47.8% were reported as socially recovered . . . meaning they were supporting themselves with jobs, or performing their duties in a satisfactory manner; 4.3% were indicated as greatly improved; 14.3% as slightly improved; and 33.5% no improvement. In this total group there was a large number of chronic forms of schizophrenia. In fact, the average length of the mental illness for this group was 3 years and 7 months. It is also interesting to note that of these patients, 65% had had electro-shock therapy prior to admission to the institution, 15% had insulin shock and 10% both electric and insulin shock. The average age of these patients was 29.5 years.

(3) In this same chiropractic mental institution, 35 - 40% of patients classified as suffering from Involutional Psychotic Reactions were reported recovered after a minimum period of one year follow-up study.

(4) 78.5% of the patients studied in this chiropractic mental institution had had previous hospitalization for their disorder. In short, a large percentage of these patients had had full medical treatment, therefore, those who did respond, apparently would not have responded except for chiropractic care. For comparison, Alexander & Moore (American Journal of Psychiatry - January, 1958) have determined, for large and undifferentiated groups of schizophrenics, the spontaneous recovery rate on a merely custodial or supportive regimen appears to be 18.9% (of 11,080 patients).

(5) A sampling of case histories from chiropractors in private practice entitled, "Nervous and Mental Cases under Chiropractic Care". (EXHIBIT 8).

(6) The book "Home Care for the Emotionally Ill" by H. S. Schwartz, D.C., a chiropractor with 40 years of clinical chiropractic experience. This book has been favourably reviewed in at least five different countries. (EXHIBIT 9).

199. The people of Canada deserve an improved mental health program in which chiropractors are recognized as members of the therapeutic team in care of the mentally ill. Chiropractic is not a cure-all, but it can make an outstanding contribution. Mental hospitals are tax supported public institutions, and duly qualified and licensed chiropractors should be permitted the privilege of helping reduce the scourge of mental illness in this land.

200. In summation, chiropractic in private practice is doing much for the mentally ill of Canada, but with proper recognition and facilities, can do much more.

MEDICINE AND CHIROPRACTIC

Introduction

201. As pointed out previously, and now repeated for the purpose of emphasis, chiropractic is a separate and distinct healing art, but comes under the general term of "medicine" when that term is used in the broadest sense encompassing all healing.

202. The chiropractor, as a member of a publicly accepted and distinct healing profession, is well qualified to make a major contribution in health matters.

203. It is a fact, however, that there are differences of opinion between the growing chiropractic profession and the orthodox medical profession. These differences are working a distinct hardship on the people of Canada because they are impeding the provision of qualified chiropractic care to those who may require it. We feel that reference should be make to this problem so that this Committee will be more familiar with the facts and will therefore be in a position to consider recommendations which are aimed at correcting this situation in the interests of the health of Canadians. Both the medical and chiropractic professions are dedicated to serve the health needs of the people. The time has come when misunderstandings, lack of information or prejudice should not be permitted to stand in the way of providing the best possible health care for the people of Canada.

HISTORY

204. The principles upon which the science of chiropractic is based can be traced to the earliest physicians of antiquity. These were known and practised by Hippocrates, the Father of Medicine, (460-370 B.C.), by Galen, (130-200 A.D.) and other noted physicians of ancient Greece and Rome. Descriptions of this method of treating bodily ills are also to be found in the ancient manuscripts of the Egyptians, Hindus and Chinese. Lost for centuries, the principles of this system of practice were re-discovered by Daniel David Palmer in 1895, and named "chiropractic", a composite of the Greek words "cheir" and "praktikos", meaning, "done by hand".

205. Evidence of the use of spinal manipulation by the early Greeks is to be found in the stone carvings discovered by archeaologists. In the book, "How Ancient Healing Govern Modern Therapeutics", by K. A. Ligeros, M.D., Ph.D., of Athens, Greece, the following photograph of such a carving is found on the frontispiece of the book.

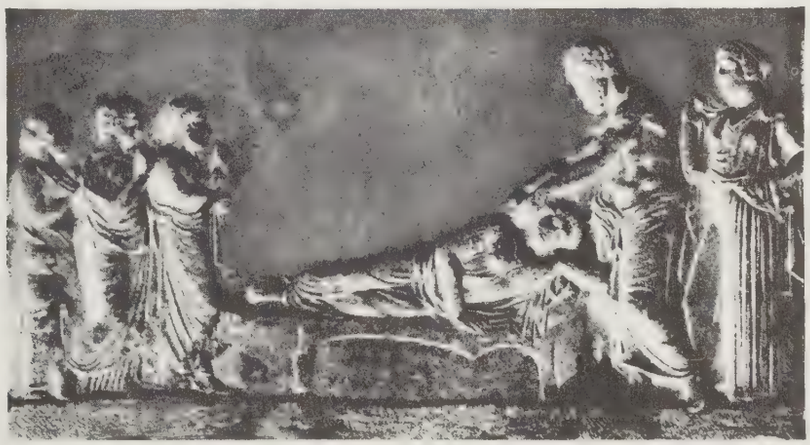


FIG. 2. Votive tablet (fifth century B.C.) from the Aesculapium of Piraeus showing manipulative adjustment of the upper dorsal spine. (Museum of Piraeus.)

Χρὴ δὲ πρῶτον μὲν γινώσκειν τὴν φύσιν
τῆς ῥάχιος, οἵη τίς ἐστιν· ἐς πολλὰ γὰρ
νουσήματα προσδέοι ἂν αὐτῆς.
HIPPOCRATES.

206. A statement by Hippocrates, in the original Greek, is shown beneath the picture and the meaning of it is found in the following quotation from page 420, "Hippocrates more than once called the attention of the practitioner to these truths, admonishing him, as well as the prospective student, to endeavour to learn to comprehend well the nature of the spinal column, to study closely its structure, and so to say, functions. Such study, he advised, is necessary in many diseases".

207. Other words of Hippocrates are found on page 420 along with the original Greek. Two of these quotations will serve to show that the ancient healers learned a great deal about spinal mechanics even without the benefit of X-ray studies. We mention these points to indicate that the principles of chiropractic have their roots firmly established in antiquity. Hippocrates said:

(a) "One or more vertebrae of the spine may or may not go out of place very much," or "they might give way very little, and, if they do, they are likely to produce serious complications and even death, if not properly adjusted."

In another statement he was quoted as saying:

(b) "It is not that one (vertebra) has sprung out to a distance from the rest, but each gives way a little, and the displacement taken altogether seems great. This is why the spinal marrow does not suffer from such distortion."

MANIPULATION A "MYSTERY" TO ORTHODOX MEDICINE:

208. Throughout the intervening centuries these principles were lost or misinterpreted. In some cases, they were handed down from father to son and have endured to the present day in the hands of individuals known as "bonesetters". The failure of the developing medical profession to accept or recognize the value of such procedures resulted in an air of mysticism around the subject of manipulation. This is referred to quite pointedly by James Mennell, M.A., M.D., B.C. (Cantab) of St. Thomas' Hospital, London, in his book, "The Science and Art of Joint Manipulation, Vol. ii, The Spinal Column" (1952) (EXHIBIT 10), in which he says, "Few people would claim to be infallible in diagnosis, and if errors in medical diagnosis are to be reduced, the technique of joint examinations (in the spine) should form part of medical training. That so far it does not, is not due to mere obstinacy. In the past there was valid reason for ignoring its possibilities for good, merely because of the shroud of mystery in which joint manipulation was draped."

OPPOSITION TO NEW DISCOVERIES BY ORTHODOX MEDICINE

209. The re-discovery by D. D. Palmer, in 1895, of the principles underlying spinal manipulation, after they had been lost for centuries, resulted in the gradual growth and development of the chiropractic profession during the ensuing 67 years. In this short period of time, tremendous accomplishments have been made against great odds. It is well known that many valuable discoveries in the field of healing have been ridiculed in their early years by the authorities of the day. Chiropractic has been no exception. A brief reference to history will show that some of the great men of medicine were considered cranks, fools and frauds in their time.

210. William Harvey (1578 - 1657) discovered how the blood circulates through the body. His theories were severely criticized and acceptance only came after his death.

211. Lavoisier (1743 - 1794) a French chemist, discovered the method by which combustion takes place. He explained respiration and developed the law of the conservation of matter. He died under the guillotine.

212. Semmelweis (1818 - 1865) a Hungarian physician who first used antiseptic methods extensively in childbirth, discovered that physicians were causing childbed fever by failing to wash their hands. His ideas were ridiculed and opponents of his theories attacked him fiercely. The resultant controversy and frustration eventually brought on a mental illness and he died in 1865.

213. During the years that Semmelwies was engaged in his battle for recognition, Pasteur and Lister were busy developing theories with regard to bacteriology and antiseptic surgery. The discoveries of these two men form the basis of modern medical practice. Lister performed his first antiseptic surgery in the year of Semmelweis' death - 1865 - and proved that Semmelweis had been right all along (World Book Encyclopedia, Vol. 16, page 235). Without the knowledge of Pasteur's bacteriology and Lister's antiseptic surgery, medicine would not exist as it is known today. These researchers were considered to be unorthodox and their ideas viewed with scorn and ridicule in spite of the value which has subsequently

213. (continued)

been placed upon their work. The Canadian Medical Association Journal commented on this phase of medical history in an editorial in the issue of November 4th, 1961, Volume 85, page 1056, where it stated:

> "In medicine we have had the dubious privilege of being often wrong. Our greatest sages even, have made blunders which seem, in retrospect, astonishing. Virchow, for instance, the father of pathology, could not be persuaded that deficiency diseases might exist, and this in spite of James Lind's demonstration that scurvy is prevented and cured by lemon juice more than a century before. Claude Bernard did not grasp the immense importance of bacteriology. Lister's contemporaries, very able men, were sure that he was either a fraud or a fool, or both. Fleming was considered an amiable crank for years. So with our knowledge of previous overcertainty we can perhaps be more detached than some disciplines. We have learned to expect, even hope, that time will produce better ideas than we have now."

214. These few remarks pointing to the hesitancy of orthodox thinkers to accept new ideas is not said in any sense of criticism, but rather to set the facts clearly before the Committee. Opposition to improved methods of treatment is to be expected from those representing the status quo, as is evidenced by history. Although on the one hand this hesitancy may prove to be a safeguard in preventing certain harmful procedures from being utilized, on the other hand, when carried to extremes it can also prevent the benefits of important new discoveries from reaching the people.

215. It should be kept in mind that the discoveries of the researchers mentioned earlier brought about such a revolution in medical practice that for the first time, there were definite forms of treatment established for certain conditions. Previously it had only been possible to care for the symptoms as they arose; following these discoveries treatments were directed at causes instead of effects.

REVOLUTION IN MEDICAL PRACTICE OVERSHADOWED DISCOVERY OF CHIROPRACTIC PRINCIPLES

216. When it is realized that Lister died in 1912, and Pasteur in 1895, it will be seen that the full significance of the works of these men was just being realized when the re-birth of chiropractic principles took place in 1895. It was also the year that German physicist Conrad Roentgen discovered X-rays. The tremendous developments in the fields of bacteriology, chemotherapy and surgery were placing medicine upon a scientific foundation for the first time. It is small wonder that Palmer's announcement, made outside the field of medicine, that misalignments in the spinal column caused interference to the normal functioning of the nervous system, with resultant malfunction in the body, was pushed to one side. The error of the original rejection was proven over a span of years, not only by the chiropractors but also by investigators in the field of medicine. We shall go into the results of these investigations a little later.

217. In stating that the rejection by medicine of chiropractic principles at the turn of the century was an error, it is not our intention to imply that the modern chiropractor supports all of the statements made by the enthusiastic pioneers of this profession, any more than the modern physician would want to indicate his support for the many optimistic claims made for new medical discoveries over the years. Almost all new methods are hailed with an enthusiasm and an optimism that must later be tempered as a result of experience. Chiropractic has been no different in this respect than have many other forms of therapy.

CHANGING MEDICAL VIEWS NOW SUPPORT CHIROPRACTIC PRINCIPLES

218. May we look now at the changes that have taken place over the years in the opinions expressed by health authorities on chiropractic? The original outright rejection of our principles was typified in the statement by Dr. Morris Fishbein, former editor of the Journal of the American Medical Association, when he wrote in 1932 in his book, "Fads and Quackery in Healing" (re-published over Dr. Fishbein's name in December, 1946, by Readers' Scope Magazine):

218. (continued)

"The X-ray has been used to search for the dislocations which the chiropractors assert are present, but these dislocations cannot be found . . . Moreover, experiments conducted in California, have shown that a force of 1,200 to 1,300 pounds, while it will fracture one of the spinal bones, will not dislocate it or cause it to press on the spinal nerves. Thus the fundamental dogma of chiropractic, that disease is caused by dislocations or subluxations of the bones of the spinal column, pressing on nerves, is simply a complete misrepresentation of the demonstrable facts."

219. This erroneous view, and other similar opinions, have formed the basis for organized medicine's opposition to regulatory chiropractic legislation both in the United States and Canada, over the years. Such opposition is in direct conflict with the public interest and we shall deal with this subject in more detail later. In order to refute Dr. Fishbein's remarks with statements by his own professional colleagues, we shall repeat here the five basic principles upon which our profession is founded, and follow each with a series of supporting statements from medical authorities. The five principles are as outlined in J. J. Janse's text: "Chiropractic Principles and Technique".

(1) That a vertebra may become subluxated.

Supporting statements:

(a) From "Back Pain", by John McM. Mennell, M.D. (EXHIBIT 11) (Little, Brown and Company). "The concept of the joint lock envisages one of two things, either an unreduced subclinical subluxation of the joint or 'seizing up' of its articular surfaces on one another."

(b) Dr. Hoyt Cox in his papers: "Manipulation in Low Back Conditions" from the Archives of Physical Therapy, January, 1935, (EXHIBIT 12) (Medicine and Chiropractic, page 20), speaking on the possibility of sacro-iliac subluxation states:
" Evidence that definite displacement does occur has been amply provided by the research of Goldthwait, Osgood, Albee, Titch, Dunlap, Magnuson and Pittfield"

219. (continued)

(c) Dr. F. A. Jostes, eminent American orthopedist in an article, "Neck Pain - The Laminograph as an Aid to the Diagnosis of Atlanto-Occipital Lesions", Journal of the American Medical Association, Vol. 118, No. 8, 1942, (EXHIBIT 12) (Medicine and Chiropractic - page 33) states: "The occipital condyles . . . may be displaced on the atlas so that there exists an atlanto-occipital subluxation."

(d) Dr. James P. Warbasse, in "Surgical Treatment", Vol. 1, page 623, states: "Subluxations of vertebrae occur in all parts of the spine and in all degrees. When the dislocation is so slight as not to affect the spinal cord, it will still produce disturbances in the spinal nerves passing off through the spinal foramina . . . "

(e) Dr. Edgar Cyriax, noted British orthopedic surgeon, in his "Collected Papers on Mechano-Therapeutics", London, 1924, (EXHIBIT 12) (Medicine and Chiropractic, page 38) states: "It appears that the medical profession, while frankly admitting that minor displacements of bones and cartilages in the extremities can arise and be reduced, refuse to hold these views as regards the vertebral column. Up to the present, however, none of those who hold these opinions have been able to give me one single reason in support of their statements."

(f) C. W. Weiant, in his book, "Medicine and Chiropractic" (EXHIBIT 12) speaking of subluxations on page 44, states: "Very pertinent in this connection is Lee A. Hadley's extensive and beautifully illustrated study 'Intervertebral Joint Subluxation, Bony Impingement and Foramen Encroachment with Nerve Root Changes' (American Journal of Roentgenology and Radium Therapy, March, 1951). (EXHIBIT 13) Weiant continues: "The excellent photographs and reproductions of X-ray film remove Hadley's study from the realm of the theoretical to that of objective demonstration. In fact, it goes far toward being a complete vindication of the major part of the chiropractic thesis."

(g) In the Journal of the American Medical Association, Vol. 104, page 1578, 1935, Stimson and Swenson, on the staff of the Presbyterian Hospital of New York, reported "Since January 1st, 1929, there have been 66 cases of unilateral subluxation of the servical vertebrae without associated fracture seen in the fracture service of Presbyterian Hospital. Of these, 5 were seen in the first three years and 39 cases

219. (continued)

in the past 18 months. This sudden and spectacular increase is not due to any change in the neck structure of New York's population but to the education of the members of the staff in recognition of the condition." The report goes on to describe the nature of the subluxations and is quoted more extensively in "Medicine and Chiropractic" (EXHIBIT 12) pages 32-33.

(2) That this subluxation tends to impingement of the structures (nerves, blood vessels, and lymphatics) passing through the intervertebral foramina.

Supporting statements:

(a) Dr. Paul C. Williams - "Reduced Lumbo-Sacral Joint Space," Journal of the American Medical Association, November 12th, 1932, (EXHIBIT 12). (Medicine and Chiropractic, page 23). In this article, Dr. Williams designates subluxation of the 5th lumbar vertebra as one of the causes of reduced lumbo-sacral joint space and consequent nerve irritation.

(b) Dr. A. Kovaks - "Subluxation and Deformation of the Cervical Apophyseal Joints; A Contribution to the Etiology of Headache", Acta Radiologica, January, 1955. (EXHIBIT 12) (Medicine and Chiropractic - page 34.) In reviewing this article for Radiology Magazine, Lawrence A. Pilla states: "In this paper, the author deals with the subluxation of the small joints of the upper cervical spine which results in constriction of cirulatory disturbances in the vertebral artery and impaired function of the sympathetic vertebral plexus. The artery and nerve are rather frequently affected by the deformities of adjacent borders . . . bilateral or unilateral headaches result . . . headache radiating from the top of the skull and the nuchal region . . . is more frequently produced by pressure on the vertebral artery and nerve . . . than any other condition".

(c) Dr. O. B. Chamberlain - "Cervical Arthritis" - Journal of the South Carolina Medical Assotiation, 1942: (EXHIBIT 12) (Medicine and Chiropractic - page 42) "This is the important point - that the sensory roots, before they get out of the foramina and form nerves may be pressed upon by various bones and soft tissue changes."

219. (continued)

(d) Drs. E. L. Turner and A. Oppenheimer - in Annals of Internal Medicine, October, 1937 (EXHIBIT 12) (Medicine and Chiropractic - page 42) "If one studies the relationship of the intervertebral foramina through which the nerves pass as they leave the spinal canal in the cervical region, it is quite obvious that narrowing of the interspaces between the vertebrae can and does change the diameter of the foramina."

(3) That as a result of such impingement, the function of the corresponding segment of the spinal cord and its connecting spinal and autonomic nerves is interfered with and the conduction of the nerve impulses impaired.

Supporting Statements:

(a) "Back Pain" - John McM. Mennell, M.D., pages 15 and 16 (EXHIBIT 11) "Conversely, another most dramatic case comes to mind of a patient who, for many years had suffered from severe angina pectoris. Then, one day, an astute cardiologist satisfied both the patient and her family doctor that her heart was perfectly sound. Examination revealed gross impairment of movement in the joints of the thoracic spine between the third and sixth thoracic vertebrae. Restoration of normal movement in these joints relieved the patient's pain, which for all this time had been erroneously diagnosed as coming from within the heart instead of as referred pain in pre-cordial structures of the chest wall in front of the heart."

(b) Dr. James P. Warbasse, - in an article entitled: "Dislocations of Cervical Vertebrae", in the American Journal of Surgery, March, 1909, (EXHIBIT 12) (Medicine and Chiropractic, page 42) said: "Dislocations of cervical vertebrae vary in degree. The most common are the slight subluxations which produce no pressure upon the cord, which give rise to more or less local discomfort, and which are important because the distortion is often great enough to cause pressure upon the spinal nerves passing out between the vertebrae. This pressure or irritation of the nerve trunks, in these more common cases, causes nerve disturbances which are referred remotely from the site of the lesion, namely at the peripheral distribution of the nerves and are manifested as peripheral pain, muscular weakness or trophic derangements."

219. (continued)

(c) The Journal of the American Medical Association was quoted by the news service of the National Chiropractic Association in September, 1961, as follows: (EXHIBIT 14) (C.C.A. Journal, Volume V., No. 4, page 3) "The JAMA says 'Pain around the heart, even when agonizing, and of a constricting nature and radiating down the left arm, may be caused by trouble in the spine instead of the heart disease, angina pectoris, which it resembles. (Note: Angina pectoris is a symptom of heart disease and not a disease in itself.) Col. Allan Izord Josey and Lt. Col. Francis Murphy, of the O'Reilly General Hospital at Springfield, Missouri, report: The spinal trouble which they found causing the pain in thirty cases was due to a narrowing of the intervertebral foramina of the upper dorsal vertebrae as produced by vertebral shifting.
'The army medical officers believe from their experience that upper dorsal vertebral shifting should be suspected in all patients suspected of having either angina pectoris or coronary occlusion in whom the symptoms, physical signs, and laboratory examinations are not conclusive.' "

(4) That, as a result thereof, the innervation to certain parts of the organism is abnormally altered and such parts become functionally or organically diseased or predisposed to disease.

Supporting Statements:

(a) In "Essentials of Body Mechanics", by the following authors:

Joel E. Goldthwait, M.D., F.A.C.S., LL.D.

Lloyd T. Brown, M.D., F.A.C.S.

Loring T. Swaim, M.D.

John G. Kuhns, M.D., F.A.C.S.

William J. Kerr, M.D., F.A.C.P. (EXHIBIT 15)

it is stated on page 45 ". . . it is possible to have irritation at the spinal nerve roots in this region (Dorsolumbar spine) with accompanying referred pain in the abdomen. It is beginning to be realized that many of the painful symptoms in the region of the appendix, lower abdomen, and gallbladder may be due to this cause rather than to any pathology in the viscera themselves."

219. (continued)

(b) In "Essentials of Body Mechanics", the authors state on page 110: "In many instances there is a similar distribution of pain and a diagnosis of angina is wrongly made where there is no disturbance to the circulation of the musculature of the heart. The electro-cardiogram shows no evidence of such disturbance . . . Here the cause of the pain is the irritation of the lower cervical and upper thoracic nerves. This is brought about by faulty body mechanics through pressure on or pinching of the nerves, either at their foramina of exit or at the costovertebral joints. This is produced through the increased flexion of the spine, the downward displacement of the ribs, and the overstretching of spinal muscles and ligaments. Impingement of the nerves can occur much more easily if there is an arthritis about the spinal joints."

(c) In "Essentials of Body Mechanics", the authors state on page 184: "There is, however, another type of nerve root irritation showing similar pathology and functional disturbances due to mechanical causes usually the result of pressure or stretching of the nerve roots. The many joints and bony processes about the spine and the numerous ligaments and muscular attachments make the spinal nerve roots peculiarly liable to mechanical irritation. Examples of this have been found by many observers in radiating pains about the shoulder girdle and in the arm, and in such pains as sciatica in the lower extremities. The same observers have noted the disappearance of the pain after the correction of the faulty body mechanics. Carnett and Gunther have described the frequent occurrence of symptoms which simulate visceral disease, particularly that of the gallbladder and appendix. They disappeared with the removal of the mechanical irritation."

(d) Drs. Atsatt and Atsatt, in their article "Sacroiliac Strain", in Physiology Review, September, 1934 (EXHIBIT 12) (Medicine and Chiropractic, page 13), state "Many patients are treated for a variety of ills which are directly referrable to minor deviations of the spine. This may seem to be an unusual statement, but multiple vague symptoms, many occasionally definite abdominal pains along with sciatic and femoral distributions are simply phenomena of crooked spines."

219. (continued)

(e) John McM. Mennell, M.D., in his book, "Back Pain" (EXHIBIT 11, page 16), states: "This example serves to remind us that pain from joint pathology may be appreciated either locally at a joint, or at any distant point or in any distant structure which shares its nerve supply with the joint. Indeed, one may postulate interference with the function of viscera as a result of referred joint pain through a somatic-visceral reflex arc. I am certain that such phenomena occur."

(f) Dr. George S. Weiger, in his book, "Genesis and Control of Disease", said: "When skeletal abnormalties exist, be they ever so slight or apparently trivial, we must admit that either directly or indirectly they affect muscles or visceral organs through pressure on nerves or ganglia. We cannot deny, anything which irritates a nerve or ganglia or interferes in any way with the free flow of nerve force to the parts supplied, may readily disturb the function of that part or give rise to pain in the nerve trunk itself or in the peripheral organ. Unrelieved functional distrubances eventually lead to organic changes."

(5) That adjustment of a subluxated vertebra removes the impingement of the structures.

Supporting Statements:

(a) Dr. J. H. Radley, (EXHIBIT 12) - (Medicine and Chiropractic, page 39) (Listed in Who's Who in American Medicine) stated in 1914 "That spinal subluxations are of frequent occurence; that they attend, if they do not precede and cause, disease in remote tissue; and that correction of these lesions is followed by restoration to normal condition and function of such remote tissues . . . are all matters of repeatedly demonstrated fact."

(b) Dr. T. T. Stamm, in "Role of Manipulation in Lower Back Pain", from Guy's Hospital Report (EXHIBIT 12) (Medicine and Chiropractic, page 52) July, 1934, said: "In subluxation, manipulation affords the only rational treatment and gives satisfactory results. In chronic strain the adhesions can be broken down by manipulation and full mobility restored . . . manipulation is often followed by considerable relief of pain."

219. (continued)

(c) Dr. Friemut Biedermann, in "Fundamentals of Chiropractic from the Standpoint of a Medical Doctor" (EXHIBIT 16) says: "Six months after fracture of the surgical neck of the right humerus, the patient had only very limited motion in the shoulder articulation. Rubbing and exercise and many other therapies, improved the situation only very slightly. One (spinal) adjustment in the cervical region immediately and permanently restored free motion in the shoulder joint and reduced to a minimum the radiating pains in the upper right arm. In a few days results were complete following this segmental therapy."

220. The foregoing evidence, from medical sources supporting the five basic principles of the chiropractic profession, is covered in more complete detail in the book, "Medicine and Chiropractic" by Weiant and Goldschmidt (122 pages) WHICH IS EXHIBIT 12.

MEDICINE APPROVES CHIROPRACTIC PROCEDURES - 41 YEARS LATER

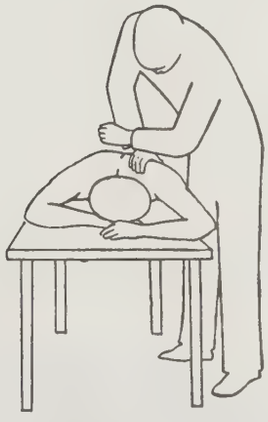
221. The following photographs are taken from the pages of chiropractic and medical publications which were printed 41 years apart. A comparison of the photographs will demonstrate the tremendous influence that chiropractic successes have had in changing medical opinion.

Photos below from the book: "An Exposition of Old Moves" Palmer School of Chiropractic, 1911.

Photos below from the book: "Joint Manipulation Vol. II, The Spinal Column", by Mennell, 1952.

EXAMINATION OF THE CERVICAL AREA

SINGLE PISIFORM THRUST REINFORCED



DOUBLE PISIFORM THRUST

Photo below from the book: "An Exposition of Old Moves" Palmer School of Chiropractic, 1911.

LATERAL FLEXION
OF LUMBAR AND
THORACIC SPINE

Photo below from the book: "Joint Manipulation Vol. II, The Spinal Column", by Mennell, 1952.

Photo below from book: "Chiropractic Principles and Technic" by Janse et al, 1947.

CROSSED
BI-LATERAL
PISIFORM
TECHNIC

Photo below from the book: "Back Pain," by John McM. Mennell, M.D., 1960.

OPPOSITION TO REGULATORY CHIROPRACTIC LEGISLATION NOT IN THE PUBLIC INTEREST

222. In spite of the wealth of references from medical literature pointing to the efficacy of chiropractic procedures, organized medicine continues to oppose chiropractic progress. Although individual medical practitioners in certain instances show signs of co-operating, the profession generally continues its policy of rejection. This works a hardship on patients seeking health care and creates difficulties for the members of our profession. We feel the basic reason for this opposition is in error and is not in the public interest.

223. All chiropractic legislation, designed to protect the public and maintain standards, has been opposed by organized medicine since the turn of the century. In spite of this opposition, however, 88% of the state and provincial legislatures in the United States and Canada have passed such legislation. The most recent was in the State of New York on March 29, 1963, when, after 50 years of medical opposition, the chiropractic profession finally succeed in their efforts to protect the public and the profession from unqualified practitioners.

224. In the Province of Quebec, at this moment, there is a Royal Commission studying the type of legislation that will be passed in that province. With New York and Quebec having solved this problem, there will remain only three states and three provinces not regulated by law. (In two of the provinces, Prince Edward Island and Newfoundland, there is only one chiropractor so no legislation is contemplated. In the third, Nova Scotia, opposition has defeated the legislative efforts for many years, however, success in New York and Quebec will have a strong influence upon that province.)

C.M.A. CONVENTION HEARS FAVOURABLE REPORT ON CHIROPRACTIC

225. We have pointed out in this presentation that orthodox medicine has frequently opposed valuable new procedures in the field of health and has even ridiculed some of its own famous researchers as fools and frauds. History is repeating itself, and we refer to statements made at the convention of the Canadian Medical Association in Banff in June, 1960, by Dr. W. B. Parsons, of Red Deer, Alberta. Dr. Parsons' report to the convention stands out

225. (continued)

in stark contrast to the views expressed by organized medicine before legislative committees and government enquiries. Newspapers across the country carried his remarks under the following headings:

"Chiropractors Said 'Not So Dumb' ", Calgary Herald, Alberta.

"M.D. Says Colleagues Should Study Chiropractors' Methods," Montreal, P.Q.

"Doctors Claimed Driving Patients to Chiropractors", Edmonton, Alberta.

"Doctors' Prejudice Outlined", Kingston, Ontario

"Learn from Others - Bids MD's Study Chiropractors", Telegram, Toronto.

"Doctors Drive Patients to Chiropractors: MD", Brantford, Ontario.

"Chiropractic Lesson Seen for Doctors", Vancouver, B.C.

"Dr. Parsons Hits Out On Back Therapy", Red Deer, Alberta.

226. Dr. Parsons was frank in his address and spoke out strongly in favour of the methods used by chiropractors. The principal points covered in his talk were as follows:

- Rejection of manipulative therapy was sometimes emotional and reminded him of the opposition to Lister, Pasteur and Hunter.
- He said the medical profession is wrongly critical of manipulation of backs.
- He said that manipulators' claims had been too extravagant but that, "some of the blame for this state of affairs lies with the medical profession due to its lack of understanding of, or failure to recognize, certain types of back pain."
- He also advised that physicians should not condemn chiropractors for their mistakes, "for we cannot hide the fact that their successes are our failures."
- He said he realized an admission of having used spinal manipulation was to seek the brand of charlatan from his colleagues.

227. Dr. Parsons' reasons for studying chiropractic are clearly outlined in an article which he prepared in conjunction with J.D.A.Cumming, M.D., and which was published in the Canadian Medical Association Journal, July 15th, 1958, Vol. 79, page 103. (APPENDIX 4). Dr. Parsons explains "The reason we took up manipulation was an interest in backache, with the early discovery that many patients who failed to respond to routine medical treat-

227. (continued)

ment went to a manipulator and received immediate relief. This discovery was followed by the acceptance of the classic advice, 'If you can't whip 'em, join 'em,' at least to the extent of borrowing their technique."

228. Dr. Parsons further comments: "Unlike the barber surgeons, the manipulators were not taken into the fold of orthodox medicine . . . their ideas were not generally accepted by the medical profession at large and, though their methods are available to all, few have taken them up.

229. "That manipulation can bring comfort to mankind there can be no doubt. There are few communities on this continent big enough to support four or five doctors that do not also support one type or another of practitioner who treats by means of manipulation. That they often relieve pain and discomfort is evidenced by the fact of their continued presence and prosperity."

ECONOMICS MAY BE A PROBLEM

230. Another reference to prosperity, from a different angle, is found in the Yale Law Journal of May 1954, which carries an article entitled: "Power, Purpose and Politics in Organized Medicine". In discussing the relationship between medicine and chiropractic it states: "Despite limitations, these groups (osteopaths and chiropractors) continue to provide the medical profession with active competition. Each year, two million Americans consult one of the nation's 32,000 licensed chiropractors for the first time.

"And, although organized medicine's justification for limited licensing of the 'cults' is expressed in terms of protecting the consumer from unqualified practitioners, there may also be present an element of self-protection from this economic encroachment."

CHIROPRACTIC PRINCIPLES ON SOUND SCIENTIFIC BASIS.

231. Evidence of the sound physiological and anatomical basis for chiropractic is to be found mainly in the books, "Chiropractic Principles and Technic", by Janse, Houser and Wells, (EXHIBIT 17), and "Medicine and Chiropractic", by Weiant and Goldschmidt,

231. (continued)

(EXHIBIT 12); "The Vertebral Column", by Illi, (EXHIBIT 18); the copy of the affidavit signed by C. W. Weiant, D.C., Ph.D., which includes his original article, "Chiropractic Theory" (APPENDIX 5); the photostatic copy of the article by Lee A. Hadley, M.D., entitled, "Intervertebral Joint Subluxation, Bony Impingement and Foramen Encroachmen With Nerve Root Changes", which appeared in The American Journal of Roentgenology and Radium Therapy, March, 1951 (EXHIBIT 13). All the above are entered as exhibits as indicated.

232. In addition to these exhibits, the Canadian Medical Association Journal for April 1, 1958, Vol. 78, (APPENDIX 6) provides a report which was translated from German on chiropractic methods. This report is an outcome of the intensive investigation into chiropractic which has taken place in Germany in the last few years and which is referred to in more detail in the book, "Medicine and Chiropractic", (EXHIBIT 12). The report is entitled, "Pain Syndromes Originating in the Vertebral Column and Their Amenability to Manipulative Treatment". (The last two words in the title have been altered in the translation from "Chiropractic Treatment", to read, "Manipulative Treatment". For an accurate translation see page 119, Medicine and Chiropractic, (EXHIBIT 12) under Supplemental References - Leemann, R.A.). We submit copies of this article as APPENDIX 6 and point out that the author refers to improvements in diagnosis and treatment of many painful conditions through an improved awareness of the importance of spinal mechanics. He states that "chiropractic" procedures permit the treatment of the cause of certain conditions rather than the effect. He also supports the five chiropractic principles. He states that subluxations are of particular importance with regard to nerve root compression and describes them as a locking of the joints. He explains: "Abolition of such locking by chiropractic manoeuvres would explain the startling relief obtained from them in such cases."

233. The investigations into chiropractic methods in Germany since World War 2 represent the only scientific study conducted by the medical profession on this subject. The results have been highly favourable. One has merely to read the references at the bottom of each page of "Medicine and Chiropractic" and the pages of Supplemental References (pages 118, 119, 120, 121) to understand the scope and depth of the study and the favourable outcome.

233. (continued)

Medicine in North America commenced its ridicule of chiropractic practice almost as far back as 1895 without having seriously studied the subject. It is true that some early chiropractors made extravagant claims. It is also true that the outright denial of the scientific basis of sound chiropractic practice by medicine is equally wrong. It is our opinion that medical treatments being given for conditions which have been incorrectly diagnosed demonstrates the lack of understanding of the significance of referred pain from the joints of the spine as stated by J. Mennell, John McM. Mennell, W. B. Parsons, R. A. Leemann, J. E. Goldthwait and many others. The works of Parsons and Leemann have been included in the pages of the Canadian Medical Association Journal.

CHIROPRACTIC HAS CONTRIBUTED TO IMPROVED DIAGNOSIS AND TREATMENT

234. We have seen in this presentation that improvements in diagnosis and treatment have come ahead as a result of the chiropractic concept of faulty spinal mechanics as a cause of many disorders. (APPENDIX 6) (from C.M.A.J. April 1, 1958). We have heard from Mennell, who was Consulting Physician in Physical Medicine, St. Thomas' Hospital, and who held the Golden Keys with Life Membership of the American Congress of Physical Medicine. He said that proper examination of spinal joints would reduce errors in medical diagnosis. Further on this subject, Mennell stated: "Until the possibility of referred pain from joints is more widely recognized, errors in diagnosis will be inevitable, and this particularly applies to pain referred from lesions in joints of the spine."

235. The knowledge gained by Leemann (APPENDIX 6) and by Goldthwait in "Essentials of Body Mechanics" is that referred pain from the spine may produce the symptoms of visceral disorders (internal organic pathology). We find it difficult to avoid the conclusion that due to the "inevitable" errors in diagnosis mentioned above, a significant percentage of patients today are being treated medically and surgically for "visceral conditions" which in fact are due to spinal subluxations of the segmental level supplying both the organ itself and the musculo-skeletal structures of the same segment, rather than due to any pathology in the organ itself. This group of patients would benefit immeasurably from the proper application of chiropractic care.

236. The extent to which patients are seeking the services of chiropractors, and the reason for it, is outlined by John McM. Mennell, M.D., of the Physical Medicine and Rehabilitation Service, Veterans Administration Centre, Los Angeles, California, when he states on pages 3 and 4 in his book, "Back Pain": (EXHIBIT 11)

> "During the past 50 years there have been six major theories as to the cause of pain in the low back. Methods of treatment have been devised for each one . . . "None of these theories ever lived up to the claims made for them by their propoments, though there was some truth to a greater or lesser degree in each of them . . . "Yet, throughout this whole period, the pathological concept which is to be described (chiropractic concept) was either known or sensed and the method of treatment has been used more or less skillfully by a few medical men and innumerable practitioners not medically qualified. The public soon came to realize that they would find greater relief more quickly and more economically from osteopathic and chiropractic treatment of their backs than they would from orthodox medical treatment." (Compare Parsons' reasons for studying chiropractic - 'many patients who failed to respond to routine medical treatment went to a manipulator and received immediate relief') (APPENDIX 4). Mennell continues by stating: "Because the original underlying pathological concepts of the osteopathic and chiropractic schools were unacceptable to orthodox medicine - and they certainly found no basis in medical pathology - the work of these groups was was condemned or ignored."

237. This missing factor in pathology was discussed by Dr. Mennell's father, the late J. B. Mennell, M.D., of St. Thomas' Hospital, in his book, "Joint Manipulation, Vol 11, The Spinal Column", (EXHIBIT 10) when he wrote:

> "There is no magic about joint manipulation. When cure of symptoms occurs it must be in accordance with the laws of anatomy, physiology, pathology and psychology. If the existing knowledge of these laws does not cover proved facts, it must be extended, and it is in the hope of helping in this direction that these pages have been written. Doubtless there is still a good deal of prejudice to be overcome. . . "

238. Such prejudice apparently does not exist so much in the mind of the public, as the younger Dr. Mennel writes, (page 5) in EXHIBIT 11:

> "If our nation's scientists and engineers had been so slow in their inquiries into the mysteries of outer space as our profession has been in its inquiries into the mysteries of joint spaces, our country would surely have degenerated into a second-rate power. Our profession has been rapidly losing ground to other groups who practise thehealing arts in all problems concerning joint pain but particularly in the field of back pain.
>
> "This work was not supported by grants from this or that foundation. It has been made possible by the continued support of Mr. and Mrs. John Doe, who suffer unhappily from what too many professional people consider to be their psychoneuroses or compensationitis - convenient pseudo-diagnoses.
>
> "Backache results in one of the greatest economic drains on the civilized world today, not only in money, but in loss of productivity."

239. In spite of the evidence of growing medical acceptance of chiropractic principles and procedures, the official medical policy is still most adamant. The National Congress on Medical Quackery in Washington, D.C. (October, 1961), sponsored by the American Medical Association and the U.S. Food and Drug Administration offers further evidence of the official attitude of medicine toward chiropractic. Mr. Oliver Field, Director of the A.M.A.'s Department of Investigation, recommended that a program be launched to discourage young men and women from enrolling in chiropractic schools, and charged that the government has sponsored and spawned quackery by providing war veterans with money to attend chiropractic schools. (EXHIBIT 19) (Globe and Mail clipping)

240. We felt called upon to reply to this attack and so, on the occasion of the second National Congress on Medical Quackery, held in Washington, D.C., October 25 and 26, 1963, the Canadian Chiropractic Association filed an official statement with the United States Department of Health, Education and Welfare, and with the Food and Drug Administration in Washington. Copies of our presentation are published in the Journal of the Canadian Chiropractic Association, Volume 7, #5 (EXHIBIT 20). The Glove and Mail

240. (continued)

news item, summarizing our presentation, is entered as EXHIBIT 21. The Toronto Daily Star news summary of the statement is also entered, and is EXHIBIT 22.

241. Medicine's unyielding official policy is not consistent with medical use of chiropractic methods. After so many years of belittling, obstructing, in fact, denying the very principle of chiropractic, it is imcompatible for medicine to now attempt to adopt chiropractic procedures and yet refuse to recognize or co-operate with chiropractors.

242. It would appear that the methods are acceptable only when under complete medical domination and control. At this time, a few Doctors of Physical Medicine (Physiatrists) are being trained, and the general practitioner, untrained and unskilled in the art of spinal adjusting, is being advised empirically to experiment in these skilled procedures. As evidenced by the article "The Simple Problems of Backache" by Dr. Gerald L. Burke, M.D., of Vancouver, B.C., in which he suggests that the physician practise a few times on his wife or colleague to demonstrate that though obviously great force is applied through the leverage, not the slightest harm will be done. We strongly suggest that advice such as this is highly improper and certainly not in the best interests of the public welfare.

SUMMARY AND CONCLUSION OF SECTION ON MEDICINE & CHIROPRACTIC

243. From the foregoing, it should be clear to the members of the Committee, that the chiropractic profession has the support of a large segment of the population, not only according to our own statements but according to the statements made by members of the medical profession. This support has been developed over the years through the successful handling of patients' conditions, frequently after medical treatment had failed to give relief. The foregoing also indicates that the basic principles underlying chiropractic practice are sound and that they have received an overwhelming degree of support from medical investigation, in spite of medicine's official stand in opposition. We submit further that the foregoing has proven that medical history is punctuated frequently with instances when orthodox medicine has been wrong in its rejection of new ideas and discoveries. The wave of professional opinions endorsing chiropractic methods which has

243. (continued)

built up in recent years, and the continuing and growing public support, points out that, once again, medicine has erroneously rejected a new development in the field of healing.

244. In the interests of the health and welfare of the Canadian people, it is most necessary that chiropractic care, by qualified, licensed chiropractors, be made readily available to those needing and desiring it. As mentioned earlier, it is not our intention to imply that we endorse all of the extreme statements made by the early chiropractors, however, wo do emphatically state that the role of the modern chiropractor is much broader than simply caring for sprains and strains of the musculo-skeletal system. In this presentation we have quoted medical authorities who have investigated chiropractic, particularly in Germany (as reported in "Medicine and Chiropractic" - Exhibit 12) and who have stated that the chiropractic concept of faulty spinal mechanics causing the symptoms of visceral disturbances and functional disorders which may later become pathological, is correct. It is said by Mennell that if errors in diagnosis are to be reduced then the chiropractic concept of nerves being irritated by spinal joints must be taken into account. We feel that these errors in diagnosis must result in patients being treated medically and surgically for conditions which should be cared for by chiropractic spinal manipulations. Conversely, of course, the chiropractor sees patients whose condition should be treated by a physician or surgeon, and in such instances, he does refer the patient to the proper practitioner.

245. The chiropractic profession has developed as a separate and distinct profession in the healing arts due to its adherence to principles which had been rejected by organized medicine. Our profession is in a position similar to that of dentistry prior to that profession's attaining full recognition. Just as a dental problem requires the decision of an experienced dentist, similarly, it must be recognized that a chiropractor is most competent to render an opinion on those cases most likely to be amenable to chiropractic care. The physician lacking training in chiropractic principles and methods, and having been exposed to many years of misinformation regarding the chiropractic profession, is in no position to make decisions of a chiropractic nature. It follows, therefore, that the provision of chiropractic services

245. (continued)

under medical prescription would be completely impossible and would result in a lowering of standards of chiropractic care and in a state of general confusion between the two professions. The members of the chiropractic profession, as a separate and distinct group in the field of healing stand ready and willing to co-operate with the medical profession and other professions in caring for the health needs of the Canadian people. Whether or not a national health program comes into being following these hearings, we believe that the present differences of opinion between our two professions can only work a hardship on the patients we are both pledged to serve. The principles of chiropractic must be fully recognized as a significant contribution to the field of healing. The tendency toward interprofessional co-operation which has begun to appear must be broadened. One of the most effective ways of accomplishing this important step is for the medical profession to cease its opposition to chiropractic legislation and for medical associations to announce that there is no objection on their part to the co-operation between practitioners which we have suggested above. This would remove one of the greatest obstacles to chiropractic progress and would pave the way for teamwork which would bring great benefits to the patients.

246. As stated earlier in our presentation, we do not make these references to the problems which have slowed our progress for the sake of being critical. We accept the fact that there have been errors and misunderstandings on both sides, and at the same time we recognize that only by a full and complete exchanging of opinions from various points of view, can society hope to progress. Progress is formed from these differences of opinion. It was true in the past, as we have demonstrated, and it is true today.

THE FUTURE

247. The inadequate numbers of trained doctors of medicine, dental surgery, chiropractic, osteopathy, and the ancillary personnel, and the decline in recruitment makes it mandatory that all skills be used effectively. There is no indication that this overall lack will be remedied in the forseeable future. Failure to afford the chiropractic profession its rightful place will only serve to compound these difficulties.

247. (continued)

In the following years, the number of licensed practitioners entering the chiropractic profession will depend upon assistance rendered in vocational guidance programs, student aid and allowances, and grants to chiropractic institutions of higher learning. The methods for provision of adequate numbers of practitioners has been outlined in the Canadian Memorial Chiropractic College section of the chiropractic submission to the Royal Commission on Health Services.

248. The volume and value of services will increase proportionately to the uniform availability of chiropractic to those wishing this health method. With the current numerical strength of the profession and full utilization of chiropractic services in a plan, the cost for the first few years is estimated at $8,000,000 per year. As the number of chiropractors increases, services will increase and total cost will rise. A practitioner increase of 25% would result in costs rising to $10 or $12,000,000 per year. These gross figures represent the estimated total cost for all Ontario chiropractic services. A portion of this amount could be contributed by various methods such as Workmen's Compensation Board payments, deductible and deterrent fees. For example, a utilization fee of one dollar per visit to be paid by the patient would approximate one and one-half million dollars per year.

249. Full use of chiropractic services will contribute toward an efficient utilization of the health dollar.

250. There is approximately one chiropractor to each 16 physicians. There is approximately one chiropractor to each 3,594 families; there is approximately one physician to each 222 families. A study of these ratios reveals the need for additions to the chiropractic profession.

251. The chiropractic profession provides a comprehensive service for those seeking health care by this method, and who are accepted as chiropractic cases. This includes consultation, physical examination, the necessary diagnostic procedures, chiropractic adjustments, advice related to the condition being treated, preventive care and reports. In addition to the foregoing, in some offices, adjunctive therapy is supplied where indicated, for which there is no additional charge.

252. In a case lending itself to either chiropractic or medical treatment, the chiropractic approach is more direct. The medical approach may require that in addition to consultation and physical examination by the general practitioner, that the patient be sent to a specialist and then to a radiologist or hospital for x-rays, a physiotherapist for adjunctive therapy, in addition to drugs or supports as indicated. The difference in overall expenditure of time, talent, money, as well as inconvenience to the patient, in such a case demonstrates the socio-economic value of chiropractic. Many cases (e.g. sacroiliac slip) seen in chiropractic offices are ones for which medical treatment requires medication, bed rest or hospitalization and resultant time loss from home or work. Under chiropractic care for these cases, the patient usually remains ambulant with little or no time loss from work, and complete recovery is frequently more rapid.

253. Any health plan purporting to be complete should make chiropractic services available in order to operate economically, conserve manpower and facilities, and provide the greatest benefit for the patient and the national economy. Failure to provide chiropractic services restricts free choice of health method, would burden over-crowded hospitals, and in addition, increase costs.

254. The total cost factors which must be taken into account are as follows:-

(a) The chiropractor does not prescribe drugs, which are frequently the major portion of medical care costs. Chiropractic treatment does not necessitate this additional expense.

(b) Expensive hospital out-patient facilities are not necessary in a chiropractic case, since the chiropractor provides his own facilities.

(c) In certain selected cases, the cost of surgery is avoided.

(d) Under chiropractic care there is frequently less economic loss to the patient, both in time and in money.

(e) The economic success of any health plan is peculiarly dependent on countering the development of an impersonal trend, by recognition of the individualistic nature of health care. If this individualistic nature of health care is not recognized, abuses, dissatisfaction and added expense are inevitable.

255. A further contribution of equal importance to the public well-being is preventive care through early recognition and treatment by chiropractic methods. Health is not merely the absence of disease and infirmity. Spinal problems are frequently the precursors of disease and disability. Therefore, it follows that preventive care of such problems is important both to the individual and to the nation. The chiropractor is trained to care for and his prime interest is in spinal and other neuro-musculo-skeletal conditions. Without the services of the chiropractic profession, many of these prodromal defects would remain unrecognized and untreated.

256. Inclusion of chiropractic care will not be a duplication of services, but rather an improvement on those restricted, professionally sponsored or privately owned incomplete medical care plans.

257. Co-operation by all branches of the healing arts and their fullest utilization in those areas of special ability will enable a health insurance plan to meet the needs of the public effectively and keep costs to a minimum, while providing a high standard of care. The chiropractors of Ontario are willing and competent to assume their full share of such a responsibility.

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CHIROPRACTOR

CANADIAN CENSUS CLASSIFICATION
1951 — PROFESSIONAL SERVICE OCCUPATIONS
1961 — PROFESSIONAL AND TECHNICAL OCCUPATIONS

CHIROPRACTOR: Chiropractic (pronounced KI-ro-PRAK-tic) is a system of treatment based on the premise that the nervous system controls all other systems and all physiological functions of the human body; that interference with the nerve control of these systems impairs their function and induces disease by rendering the body less resistant to infection or to other exciting causes.

The chiropractor adjusts by manipulation the structures of the body, especially those of the spinal column, to restore normal nerve function, thus giving the body's protective and restorative powers an opportunity to function normally.

HISTORY AND IMPORTANCE

The principles upon which the science of chiropractic is based can be traced to the earliest physicians of antiquity. They were known and practised by Hippocrates, the Father of Medicine (460-370 B.C.), by Galen (130-200 A.D.) and other noted physicians of ancient Greece and Rome. Descriptions of this method of treating bodily ills are also to be found in the ancient manuscripts of the Egyptians, Hindus and Chinese.

Lost for centuries, the principles of this system of practice were rediscovered by Dr. Daniel David Palmer in 1895, and named chiropractic — a composite of the Greek words *cheir* and *praktikos,* meaning "done by hand."

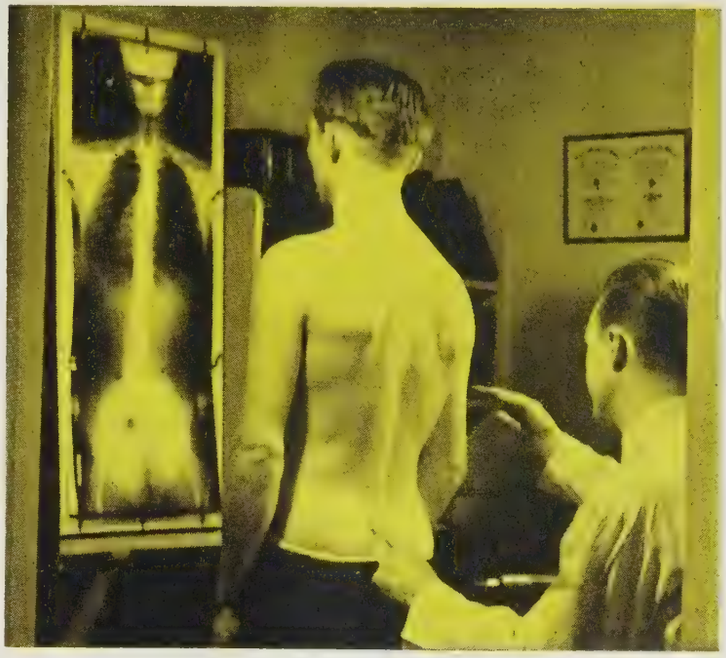
Increasing popular demand for health services has resulted in the rapid growth and development of the practice of chiropractic. Its practitioners are now found in almost every country of the globe. The profession has been accorded legal recognition as a separate branch of the science of healing in 47 of the 50 American states and in six of the provinces of Canada — namely, British Columbia, Alberta, Saskatchewan, Manitoba, Ontario and New Brunswick. In the United States the members of the profession number approximately 20,000. There were 1175 registered chiropractors in Canada in 1961. These were distributed as follows:

British Columbia	-	148
Alberta	-	128
Saskatchewan	-	36
Manitoba	-	42
Ontario	-	545
Quebec	-	240
New Brunswick	-	14
Nova Scotia	-	20
Prince Edward Island	-	1
Newfoundland	-	1
		1175

It is significant to note that about ten per cent of the qualified practising practitioners are women.

NATURE OF THE WORK

The correction of faulty body mechanics forms the essence of the chiropractor's work. Our bodies are constructed upon sound mechanical principles and any deviation from this, particularly in the spine, can interfere with the body's normal processes. Patients requiring drugs or surgery are referred to those trained in their application. He bases his entire method of healing upon the concept that disease is often caused by interference with the normal flow of nervous and physical energy along the spinal column, which is the centre of the entire nervous system, and from which all other systems are controlled. Thus the chiropractor believes that he can by skilful adjustment of the vertebrae correct the position of the displaced ones and allow nervous energy to flow properly. In doing so the chiropractor believes he can remove the cause of the disease and, with the help of exercise, hygiene, proper foods and rest, give the body's restorative and protective organs a chance to function properly.



The Chiropractor's first task is to arrive at an accurate diagnosis of the patient's condition.

In a general practice varied cases come to the chiropractor. The first task of the practitioner is to arrive at an accurate diagnosis of the patient's condition. This is accomplished by questioning, observation, manual examination, the aid of modern techniques, instruments, X-ray and laboratory services, and the application of careful judgment. He then advises the patient regarding the course of treatment to be followed. This usually involves a series of spinal adjustments and often a definite series of corrective exercises to build up and maintain spinal balance. Occasionally supportive treatment involving dietary and physiotherapeutic procedures are also used.

The chiropractor must exercise great care and integrity in accepting patients, adjusting only those whom he is reasonably sure of benefiting from this method of healing. The chiropractor does not hesitate to refer patients to other members of his profession having more specialized methods or knowledge and to those skilled in other of the healing arts where such referral seems desirable. Although the chiropractor is a general practitioner he approaches the problems of health and disease as a specialist in body mechanics.

The application of chiropractic is both mental and manual in nature. The exercise of mental powers and knowledge is required for both diagnosis and adjusting. Concentration on the resistance and texture of the structure under the hands of the adjustor is necessary to determine the depth, direction and amount of force required to move the structure in the correct

manner to restore its relationship and function. Manual skill and physical effort is necessary to the application of corrective force. The practitioner is able to meet many patients in a day, and has the constant stimulation of varied problems, although the personalized service and time required limits the number that can be cared for efficiently during the average day. The work is somewhat repetitive in that, although differing in location and manner of delivery, chiropractic adjustments are similar in nature.

WORKING CONDITIONS

The chiropractor's work is done in pleasant and hygienic surroundings. He may choose to establish an office in his own home or in separate quarters in the business section of his locality. Some chiropractors, particularly in the rural areas, may visit their patients' homes for the purpose of giving adjustments. Working hours are subject to the choice and discretion of the individual, and he may arrange appointments for the most part to suit his own convenience. Most chiropractors establish themselves in independent practice, although there are instances where several practitioners have grouped themselves to form a clinic. A good many chiropractors employ a nurse or office assistant to help them in the routine of their work. As the nature of the practice calls for a repetition of adjustments the chiropractor may find it necessary to arrange for an assistant to take care of certain cases during extended holiday periods. Being self-employed, the chiropractor's income stops, of course, during vacation.

The occupational hazards for the chiropractor are similar in many respects to hazards in other fields. Improper habits of body-positioning during the application of spinal adjustments, may have an adverse effect upon the chiropractor's spine. Proper attention to such details as this, however, enable one to avoid this problem. A similar hazard affects other professions such as dentistry and nursing, wherein the spine is frequently called upon to assume an unnatural position for periods of time. Other potential hazards involve the effects of x-ray equipment if improperly used, or used without adequate protection, and the usual risk of contagion or infection experienced by all members of the healing arts.

Chiropractic is far from being a sedentary occupation, and the constant daily exercise involved in providing anatomic manipulations, or adjustments, is the best form of body-mind co-ordination to keep the doctor's own structure in good condition.

The practice of chiropractic in British Columbia, Alberta, Manitoba, Ontario and New Brunswick is supervised by licensing boards composed of chiropractors who are responsible to the provincial government for enforcing the requirements and restrictions as established by the acts. In the province of Saskatchewan, examinations for licensure are taken under the supervision of, and as set by faculty members of the University of Saskatchewan. It is necessary for every chiropractor desirous of practising in any of the above-mentioned provinces to pass the examination set by the provincial Board, and pay the prescribed fee to become legally registered and licensed to practise. Failure to do so would entail legal action by the Board in the province concerned. An annual registration fee is charged by the Board in each province. The qualified chiropractor is usually a member of the professional chiropractic association of his province and of the Canadian Chiropractic Association.

Chiropractors practising in Quebec, Nova Scotia, Prince Edward Island, or Newfoundland, operate at a disadvantage as no system of licensing or control is at present in force in these provinces. While 88% of the states and provinces in North America have passed chiropractic legislation for the regulation and control of the profession by government-appointed chiropractic boards, 12% have not yet brought their legislation up to date and the four provinces mentioned above fall into this minority group. Those wishing to practise in these four provinces should obtain a licence in another province as evidence that they have attained the standards required by a provincial government. The chiropractic associations in the four provinces, particularly Quebec and Nova Scotia, have been trying for years to correct this situation by presenting proposed legislation to the governments concerned. The profession will, in the public interest, continue its efforts and has every hope of succeeding in the near future. The increasing demand for chiropractic services will make it necessary for the remaining 12% of the states and provinces to pass the required legislation.

QUALIFICATIONS NECESSARY FOR ENTRY AND SUCCESS

As the chiropractor's work brings him into intimate and personal relationships with his patients, a pleasing personality, marked by kindliness, sympathy, patience, and a real desire to serve, and a manner which inspires confidence are essential to success. Failures among practitioners of chiropractic have in most instances been traceable to the lack of desirable personality traits and personal discipline. In order to withstand the pressure of the work, he needs a good physique. Endurance, good eyesight, and good hearing are the most necessary physical requirements. The work does not require more than ordinary muscular strength, but rather a high degree of manual dexterity and skill. High moral character, sound judgment, emotional stability, initiative, business ability, and respect for professional ethics are attributes of the successful chiropractor. Better than average mental ability is necessary in order to be successful in the long period of study which must be pursued before entry into the profession. Chiropractic courses require even at the start about thirty hours of class work per week and in addition, a considerable amount of home study. During the last one and one half years additional hours are required for clinic interneship in the college out-patient department.

PREPARATION NEEDED

Wherever, as in the six provinces listed above, the profession is regulated by law, very definite prescriptions are made as to the nature and length of preparation. Chiropractors in these provinces have had to pass the examinations of a legally appointed Board before receiving a licence to practise. It is essential therefore that training be obtained in an institution which meets the standards required by the Board. The student interested in becoming a chiropractor should consult with the authorities in his province, or should write to the Canadian Chiropractic Association, 252 Bloor Street West, Toronto 5, Ontario, with regard to standards in the province, and with regard to the colleges which are provincially accredited. Some provinces and states do not specify individual colleges, but do insist on a high standard of education and that the applicant be able to pass licensing examinations. Graduates of the Canadian Memorial Chiropractic College in Toronto are accepted as candidates for licensure in all provinces and all states and in foreign countries.

At the present time the following are the accredited colleges in the United States and Canada:

Canadian Memorial Chiropractic College,
252 Bloor St. West, Toronto 5, Ontario, Canada.

Chiropractic Institute of New York,
325 East 38th St., New York 16, N.Y., U.S.A.

Lincoln Chiropractic College,
633 N. Pennsylvania St., Indianapolis 4, Indiana, U.S.A.

Logan College of Chiropractic,
7701 Florissant Road,
St. Louis 21, Missouri, U.S.A.

Los Angeles College of Chiropractic,
920 East Broadway, Glendale 5, Cal., U.S.A.
National College of Chiropractic,
20 N. Ashland Blvd., Chicago 7, Illinois, U.S.A.
Northwestern College of Chiropractic,
2222 Park Ave., Minneapolis, Minnesota, U.S.A.
Palmer College of Chiropractic,
1000 Brady Street, Davenport, Iowa, U.S.A.
Texas Chiropractic College,
San Pedro Park, San Antonio, Texas, U.S.A.
Western States Chiropractic College,
1536 S.E. 11th St., Portland 14, Oregon, U.S.A.

Some idea of the nature of training offered by accredited chiropractic colleges may be obtained by a consideration of the curriculum of the only chiropractic college in the British Commonwealth, the Canadian Memorial Chiropractic College, Toronto, Canada. It was founded in memory of D. D. Palmer, the discoverer of Chiropractic, and classes commenced September 18th, 1945, fifty years to the day from the first chiropractic adjustment. The College is owned and operated by the Canadian Memorial Chiropractic College Association and is chartered under the laws of Ontario. This Association is composed of chiropractors from all across Canada. The course requires a minimum of 4,700 hours, in four academic years of nine months each. The following list indicates the subjects of the curriculum: Embryology, Histology, Anatomy (including human dissection), Chemistry (Inorganic, Organic and Physiological), Physiology, Principles and Theory of Chiropractic, Hygiene and Public Health, Bacteriology, Pathology, Diagnosis (including Laboratory Diagnosis), X-ray (Physics, Technique and Interpretation), First Aid, Gynaecology, Obstetrics, Pediatrics, Dermatology, Psychology (normal and abnormal), Psychiatry, Jurisprudence, and Ethics. The analysis of spinal and general anatomical distortions are emphasized and the major chiropractic techniques for correction are taught. In addition, optional courses of additional hours are offered in supportive therapy and public speaking.

A registration fee of $75.00 is payable at the time of filing an application with the Canadian Memorial Chiropractic College. This fee includes laboratory fees and Student Administrative Council dues for the four years. Tuition is $500.00 per year in advance, or slightly higher when paid by the semester, or month. Textbooks and instruments would average between $75.00 and $100.00 per year. Living expenses vary greatly, according to the preferences of the student, but on the average seem to range from $15.00 per week upward. A few scholarships are available. One for the best thesis of 1,000 words or more pays one year's tuition. Mr. J. M. Wallace of Oakville, Ontario, provides the funds for a two hundred and fifty dollar scholarship for the student in each of the lower three years of the course who attains the highest academic standing, and a $250.00 scholarship at graduation to the student attaining the highest average grade in all phases of Anatomy. The Dr. Walter Sturdy Award is presented at graduation to the person with the highest average in all subjects during the four-year course.

The minimum entrance requirement at the Canadian Memorial Chiropractic College is the same as required for entrance to a university or similar institution of higher learning. Many students are entering with a B.A. or B.Sc. degree as preparatory education. The successful student qualifies for a Doctor of Chiropractic (D.C.) diploma upon graduation. More detailed information may be obtained from the Registrar, Canadian Memorial Chiropractic College, 252 Bloor St. West, Toronto, Canada.

Opening an office for the practice of chiropractic entails a capital expenditure that varies greatly with the tastes of the individual. A modest beginning is usually made, with more and better equipment and furnishings added later. Many chiropractors purchase their own X-ray equipment at a minimum cost of some $3,000. This is not a necessity, however, since there are many offices equipped with X-ray where services may be obtained for any patient. It is desirable to refer many of the patients requiring X-rays of pathological areas to radiologists of the medical profession, who co-operate by providing a detailed report and the films. This co-operation on the part of specialists is by no means restricted to the radiologist. A very satisfactory working arrangement exists in most centres among those in various branches of the healing profession.

EMPLOYMENT, ADVANCEMENT, OUTLOOK

Most chiropractors are general practitioners, though a number do specialize in various methods of treatment, as well as fields of specialization, such as the care of children, athletic injuries, chronic diseases, poliomyelitis, etc. The need for individuals with the special qualifications to enter the teaching sub-division of the profession is great, and although not offering equal financial returns for the time extended, has many other compensations and a personal satisfaction to be found in few other phases of the work.

The profession in Canada remains uncrowded, with approximately one chiropractor to every 16,000 persons. Many large towns throughout the country lack chiropractic service. Several times the present number could be absorbed without difficulty. In many countries outside North America there is much pioneering to be done. At present the numbers in the British Isles, Australia, New Zealand, Europe, Africa and Asia are very meager. For those with a spirit of adventure and a desire to pioneer, chiropractic offers unlimited possibilities.

REMUNERATION

In any independent profession where a practice must be established, financial returns are likely to be low in the early years. The rate at which earnings increase will depend upon the initiative of the individual in building up his practice and upon the professional reputation which his skill secures. One's earnings tend to increase with experience and do not necessarily fall off with advance in age. All these considerations hold true in the field of chiropractic. Income is on a fee basis and, of course, continues only while the practitioner is active. The chiropractor's income will also be affected by economic conditions, and by the type of locality in which he chooses to practise. It is most variable in single industry towns that experience seasonal variations in employment. The range of net income will probably be from about $3,000 a year for the average beginner to as much as $20,000 and more in exceptional cases. About $8,000 a year may be taken to represent the net income of the average established practice. The span of activity in the occupation is considerable. There are many active chiropractors who have been in practice for 35 years or longer.

No one should enter the chiropractic profession with the object of becoming wealthy. Unless one is sure that he will enjoy the work and holds a high ideal of service to humanity, it would be better to seek opportunity elsewhere. No small measure of the chiropractor's reward comes from the satisfaction which attends the relief of human suffering. This entails a great responsibility which is seldom found accompanying a mercenary attitude.

ADVANTAGES

Among the advantages of work in this occupation may be counted the opportunity to enter a young and growing pro-

fession which is winning an increasing place in public esteem. The work is done in pleasant surroundings and there is the constant stimulation of intimate contacts with one's fellow men. Financial rewards are usually adequate and there is the additional satisfaction which comes from service to society. Not the least consideration is the fact that the chiropractor is independent of the direction of superiors, and can, within practical limits, control his own working conditions. The field offers opportunities for women to enter a profession on the same basis as men. At present women have a slight advantage since they constitute a small minority and many female patients and children prefer a female doctor.

DISADVANTAGES

Perhaps the chief disadvantages are the length of training required and the financial outlay necessary for securing this training and establishing a practice. It may, however, be noted that these compare favorably with the requirements in other healing professions. While the original cost of equipment is high, it lasts a long time.

Dealing with patients calls for a great deal of understanding and tact, and entails a certain amount of nervous strain. Since the practice of the profession makes exacting demands on the personality of the practitioner, it is well for one contemplating entry to make very certain that he possesses the essentials in this regard.

Inasmuch as chiropactic is one of the youngest healing arts, is has met with vigorous criticism and opposition from a number of sources. However, with a growing awareness of the fundamental principles of chiropractic on the part of the older professions and the public, this attitude has rapidly changed. The clinical results obtained by an increasing percentage of the population have won the sincere respect of the public for the profession. There remain few areas in Canada today where the chiropractor is not received as a professional man, with the respect, privileges, added duties and obligations of that position.

HOW TO GET STARTED TOWARD THE OCCUPATION

The prospective candidate for the chiropractic profession should first take stock of his personal attributes to determine his qualifications and aptitude. Thus, he should have shown during high school a liking for and a proficiency in English, science, shop-work and mathematics. Manual dexterity and highly developed eye-hand skills are as necessary for the chiropractor as for the surgeon. The ability to mix with people and be socially acceptable is an important characteristic demonstrated by extra-curricular activities. Qualities of leadership, initiative, emotional stability are important, as is the ability to plan and direct a personal work program.

Further information, to be obtained in the form of pamphlets, periodicals and college catalogues, should be studied. Practising chiropractors will prove helpful in supplying additional information. Where possible, a visit should be paid to the college of one's choice for an interview with the dean, and to see the physical plant of the institution. If this is not possible, a discussion with a chiropractic college senior student should be helpful.

RELATED OCCUPATIONS

Chiropractic, being one of the youngest and fastest developing professions in the healing arts, is related in varying degrees to all other branches such as medicine, dentistry, optometry, osteopathy, podiatry, etc., and co-operation exists in most instances between practitioners in the different professional groups. The chiropractor is trained in the necessary diagnostic procedures that enable him to determine whether a patient's condition is within his particular field of practice or whether the patient should be referred to another professional person. Referrals of this type take place frequently and require a close level of co-operation between the practitioners concerned, in the best interest of the patient.

FOR FURTHER STUDY

PAMPHLETS:

A Career in Chiropractic. Canadian Chiropractic Association, 252 Bloor St. West, Toronto 5, Ontario, 1959.

Chiropractic. Reprint from the February, 1961 issue of the University of Toronto Medical Journal. Canadian Chiropractic Association, Ontario Division, 252 Bloor St. West, Toronto 5, Ontario.

Chiropractic — A Career. By J. J. Nugent, D. C. Department of Education, National Chiropractic Association, National Bldg., Webster City, Iowa, 1950.

Chiropractic as a Career. By Wilfred E. Belleau. Park Publishing House, 4141 West Vliet St., Milwaukee, Wis., 1958.

Chiropractor. Careers, Largo, Florida, 1959.

Chiropractor. Chronicle Guidance Publications, Inc., Moravia, N. Y., 1957.

The Present Day Doctor of Chiropractic. Canadian Chiropractic Association, 252 Bloor St. West, Toronto 5, Ontario, 1956.

PERIODICALS:

Healthways (monthly). National Building, Webster City, Iowa, U.S.A.

The Journal of the Canadian Chiropractic Association (bi-monthly). 252 Bloor St. West, Toronto 5, Ontario.

The Journal of the National Chiropractic Association (monthly). National Building, Webster City, Iowa, U.S.A.

The International Review of Chiropractic (monthly). International Chiropractors Association, 741 Brady St., Davenport, Iowa, U.S.A.

This G. C. Occupational Information Monograph in its present edition was prepared by D. C. Sutherland, D.C., Executive Secretary, Canadian Chiropractic Association, Toronto, Ontario, Canada. Edited by M. D. Parmenter. Copyrighted and published in 1948, revised and re-published in 1949, 1954, 1959, 1962 and again in 1963 by The Guidance Centre, Ontario College of Education, University of Toronto, 371 Bloor St. W., Toronto 5, Ontario, Canada.

SPECIAL INFORMATION CONCERNING THIS OCCUPATION IN:

_____

Province, City, Town or other area.

(Number Employed, Working Conditions, Training Opportunities, Employment Opportunities, Special Regulations, Remuneration, Local Trends, etc.) This information may be provided on an attached sheet.

LE CHIROPRATICIEN

CLASSIFICATION DU RECENSEMENT CANADIEN
1951 — OCCUPATIONS TYPE SERVICE PROFESSIONNEL
1961 — OCCUPATIONS PROFESSIONNELLES ET TECHNIQUES

LE CHIROPRATICIEN: La chiropratique (se prononce ki-ro-pra-tique) est un mode de traitement fondé sur le principe voulant que le système nerveux régisse tous les autres systèmes et toutes les fonctions physiologiques du corps humain: que toute obstruction altérant l'action nerveuse qui régit ces systèmes nuise à leur fonctionnement et entraîne la maladie en réduisant le pouvoir de résistance à l'infection et à d'autres causes excitatrices.

Le chiropraticien ajuste, au moyen de manipulations, les structures du corps, particulièrement celles de l'épine dorsale, afin de normaliser l'influx nerveux pour redonner un fonctionnement normal aux pouvoirs protecteurs et restaurateurs du corps.

HISTOIRE ET IMPORTANCE

Les principes sur lesquels la chiropratique se fonde se retrouvent chez les tout premiers médecins de l'antiquité. Hippocrate, le père de la médecine (460-370 av. J.-C.), Galien (130-200), et d'autres célèbres médecins grecs et romains les connaissaient et les mettaient en pratique. On retrouve aussi dans d'anciens manuscrits égyptiens, hindous et chinois des descriptions de cette méthode de traiter la maladie.

Perdus pendant des siècles, les principes servant de base à cette pratique ont été redécouverts par le Dr Daniel-David Palmer en 1895 et nommés chiropratique—des mots grecs **cheir** et **praktikos** qui veulent dire "fait à la main".

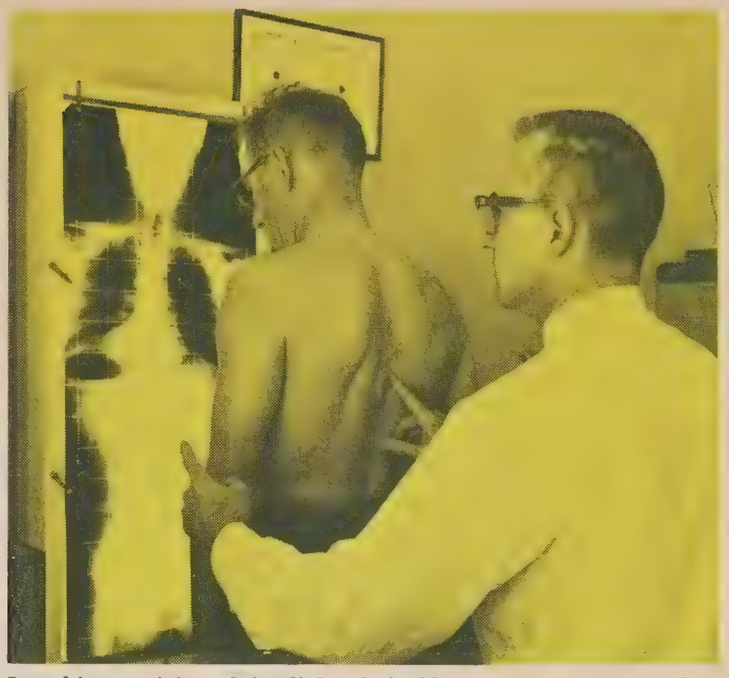
Une demande sans cesse croissante pour des services de santé a contribué au développement de la chiropratique. On trouve maintenant des chiropraticiens dans presque tous les pays du monde. La chiropratique a obtenu une reconnaissance légale comme branche séparée de la science de la santé dans 47 des 50 Etats armericains et dans six provinces du Canada, soit la Colombie-Britannique, l'Alberta, la Saskatchewan, le Manitoba, l'Ontario et le Nouveau-Brunswick. Les Etats-Unis comptent environ 20,000 chiropraticiens. Le Canada en avait, en 1961, 1175 d'inscrits. Ils se répartissaient comme suit:

Colombie-Britannique	-	148
Alberta	-	128
Saskatchewan	-	36
Manitoba	-	42
Ontario	-	545
Québec	-	240
Nouveau-Brunswick	-	14
Nouvelle-Ecosse	-	20
Ile-du-Prince-Edouard	-	1
Terre-Neuve	-	1
		1175

Notons en passant qu'environ dix pour cent des chiropraticiens sont des femmes.

NATURE DU TRAVAIL

La correction des dérangements dans la mécanique du corps constitue l'essence du travail du chiropraticien. La structure du corps repose sur des principes mécaniques définis et tout ce qui nuit à leur application, surtout dans la colonne vertébrale, peut nuire au fonctionnement normal du corps. Les malades qui ont besoin de médicaments ou de chirurgie sont dirigés vers les gens qui s'occupent de ces domaines. Le chiropraticien fonde toute sa méthode de guérison sur le principe que la maladie provient souvent de l'altération des influx nerveux et physiques le long de la colonne vertébrale, qui est le centre de tout le système nerveux et dont dépendent tous les autres systèmes. Aussi le chiropraticien croit-il qu'au moyen de manipulations habiles des vertèbres il peut corriger la position de celles qui sont déplacées pour permettre à l'énergie nerveuse de passer librement. En agissant ainsi, il croit pouvoir éliminer la cause de la maladie et, avec l'aide d'exercices, d'hygiène, de repos et d'une bonne alimentation, permettre aux organes restaurateurs et protecteurs de fonctionner normalement.



Le chiropraticien doit d'abord établir un diagnostic précis de la condition du malade.

En pratique générale, bien des cas différents viennent chez le chiropraticien. Il faut d'abord établir un diagnostic précis de la condition du malade. On y parvient au moyen de questions, d'observation, d'examens manuels de techniques modernes, d'instruments, de rayons-x, de services de laboratoires et de l'application d'un jugement éclairé. On informe alors le malade des traitements à suivre. On a généralement recours à une série de traitements de l'épine dorsale et aussi à une série définie d'exercices correctifs pour rétablir et maintenir l'équilibre de la colonne vertébrale. Occasionnellement le traitement peut comprendre des procédés de diététique et de physiothérapie.

Le chiropraticien se doit d'agir avec beaucoup d'attention et d'intégrité quand il accepte un malade. Il n'ajustera que ceux qu'il croit être aptes à profiter de ses soins. Il n'hésite pas à confier certains malades à des confrères disposant de méthodes plus spécialisées ou à des tenants d'autres méthodes de traitement quand c'est nécessaire. Bien que faisant de la pratique générale, le chiropracticien agit comme un spécialiste de la mécanique humaine dans la solution des problèmes de santé et de maladie.

Les renseignements sur les occupations, pour avoir de la valeur, doivent être à date. Les Monographies du Guidance Center sont revisées et réimprimées fréquemment.

Cette Monographie sur "Le Chiropraticien" a été revisée à AOÛT, 1963.

La tâche du chiropraticien est aussi bien intellectuelle que physique. Science et intelligence font partie du diagnostic comme de l'ajustement. Le chiropraticien doit concentrer son attention sur la résistance et la texture des tissus qu'il manipule pour déterminer la profondeur, la direction et la quantité de force voulues pour rétablir relation et fonction. L'application de la force corrective exige habileté manuelle et effort physique. Le chiropraticien peut voir bien des malades chaque jour et la variété des problèmes stimule son intérêt. Mais parce qu'il doit accorder une attention personnelle à chaque malade, le chiropracticien n'a pas le temps de prendre soin de plus qu'un certain nombre de personnes chaque jour. Il y a aussi de la répétition car bien qu'administrés à des endroits différents et de diverses façons, les ajustements chiropratiques sont de même nature.

CONDITIONS DE TRAVAIL

Le travail du chiropraticien se fait dans un environnement agréable et hygiénique. Il peut s'établir dans son propre domicile ou dans un bureau séparé, dans le quartier des affaires. Dans les régions rurales surtout, le chiropraticien voit souvent ses malades à domicile. Les heures de travail sont à la discrétion du praticien et il peut procéder sur rendez-vous généralement à son goût.

La plupart des chiropraticiens travaillent seuls bien que parfois plusieurs se groupent pour former une clinique. Bien des chiropraticiens ont une garde-malade ou une assistante pour le travail de routine. Comme il peut y avoir répétition des ajustements le chiropraticien peut avoir recours à un remplaçant pour certains cas ou durant les vacances. Durant ces dernières périodes les revenus cessent puisque le chiropraticien n'est pas un salarié.

Les dangers de maladie auxquels s'expose le chiropraticien sont à peu près ceux qu'on trouve dans les autres professions. L'adoption de certaines positions défectueuses en donnant des ajustements peut avoir de mauvais effets sur l'épine dorsale du chiropraticien. Il peut les éviter en faisant attention. Dentistes et gardes-malades ont le même problème puisqu'ils doivent assumer certaines pauses anormales durant certaines périodes de temps. Parmi les autres dangers, comptons les effets des rayons-x si on les emploie mal ou sans protection suffisante, de même que les risques de contagion et d'infection auxquels s'exposent tous ceux qui prennent soin des malades.

La chiropratique est loin d'être une occupation sédentaire. L'exercice quotidien que l'on fait en donnant des manipulations anatomiques, ou ajustements, constitue la meilleure méthode de coordination entre le corps et l'esprit que l'on puisse trouver. Elle se traduit par une excellente condition de la structure du praticien.

En Colombie-Britannique, en Alberta, au Manitoba, en Ontario et au Nouveau-Brunswick, des commissions formées de chiropraticiens accordent le droit de pratique. Elles répondent aux gouvernements provinciaux de l'application des exigences et des restrictions imposées par la loi. En Saskatchewan, les examens pour obtenir le droit de pratique sont établis et surveillés par des membres des facultés de l'université de la province. Les chiropraticiens qui veulent pratiquer dans une des provinces ci-haut mentionnées doivent passer les examens d'une Commission provinciale et verser les montants requis pour être inscrits et avoir le droit de pratiquer. En ne suivant pas ces formalités, on est passible de poursuites par la Commission provinciale. Chaque commission provinciale perçoit en outre un droit annuel d'inscription. La plupart des chiropraticiens sont membres de l'association chiropratique de leur province et de l'Association chiropratique canadienne.

Les chiropraticiens du Québec, de la Nouvelle-Ecosse, de l'Ile-du-Prince-Edouard et de Terre-Neuve sont désavantagés car il n'existe chez eux aucun système d'octroi de droit de pratique. Bien que 88 pour cent des Etats et provinces d'Amérique-du-Nord aient confié à des commissions nommées par le gouvernement le soin d'appliquer des lois chiropratiques, 12 pour cent n'ont pas encore modernisé leurs lois. Les quatre provinces ci-haut mentionnées font partie de ce groupe minoritaire. Ceux qui veulent pratiquer dans ces provinces devraient obtenir un droit de pratiquer dans une autre province comme preuve de leur compétence comme chiropraticiens. Les groupements chiropratiques des quatres provinces, surtout ceux du Québec et de la Nouvelle-Ecosse, tentent depuis des années de corriger cette situation en suggérant des projets de lois à leurs gouvernements respectifs. Dans l'intérêt du public, ces efforts se poursuivent et on a bon espoir d'obtenir gain de cause dans une avenir rapproché. Le demande sans cesse croissante pour les soins chiropratiques dans ces 12 pour cent d'Etats et de provinces rendra nécessaire l'adoption de lois chiropratiques.

QUALITÉS REQUISES POUR REUSSIR

Parce que le chiropraticien entretient des relations intimes et personnelles avec les malades, il doit, pour réussir, avoir une personalité agréable marquée de bonté, de sympathie, de patience, d'un désir réel de servir et d'un comportement qui inspire confiance. Une carence dans une de ces qualités, ou un manque de discipline personnelle sont généralement les causes d'échecs chez les chiropraticiens. Parce que le travail exige une attention minutieuse, le chiropraticien doit avoir un bon physique. Endurance, bonne vue, bonne ouie, autant d'éléments nécessaires. Le travail n'exige pas une force musculaire au-dessus de la moyenne, mais bien plutôt un haut degré d'habilité et de dextérité manuelle. Moralité, jugement, stabilité émotive, initiative, habileté en affaires, respect de l'éthique professionnelle sont les attributs du chiropraticien qui réussit. Pour réussir durant la longue période d'études qui précède l'entrée en pratique il faut avoir une habileté mentale au-dessus de la moyenne. Le cours de chiropratique, même au début, comprend une trentaine d'heures de classe par semaine, sans compter les heures d'étude. Durant la dernière année et demie il faut compter les heures additionnelles de clinique comme interne.

PRÉPARATION NECESSAIRE

Partout où la profession est régie par la loi, comme dans les six provinces mentionnées plus haut, il existe des règlements définis sur la nature et la durée de la préparation. Les chiropraticiens de ces provinces ont dû passer les examens d'une commission nommée par la loi avant d'obtenir le droit de pratiquer. Il est donc nécessaire de suivre les cours d'une institution dont les normes satisfont la commission. Le candidat à l'étude de la chiropratique devrait consulter les autorités de sa province ou devrait écrire à l'Association chiropratique canadienne, 252, ouest, rue Bloor, Toronto 5, Ontario au sujet des normes requises dans sa province et des écoles reconnues par sa province. Certains Etats et provinces ne spécifient aucun collège en particulier, mais ils exigent un niveau d'instruction élevé et la capacité de passer les examens provinciaux. Les diplomés du Canadian Memorial Chiropractic College, de Toronto, sont acceptés comme candidats aux examens de toutes les provinces, tous les Etats et tous les pays.

Voici la liste des collèges accrédités aux Etats-Unis et au Canada.

Canadian Memorial Chiropractic College,
252, Bloor St. West, Toronto 5, Ontario, Canada.

Chiropractic Institute of New York,
325 East 38th St., New York 16, N.Y., U.S.A.

Lincoln Chiropractic College,
633 N. Pennsylvania St., Indianapolis 4, Indiana, U.S.A.

Logan College of Chiropractic,
7701 Florissant Road,
St. Louis 21, Missouri, U.S.A.

Los Angeles College of Chiropractic,
920 East Broadway, Glendale 5, Cal., U.S.A.

National College of Chiropractic,
20 N. Ashland Blvd., Chicago 7, Illinois, U.S.A.

Northwestern College of Chiropractic,
2222 Park Avenue, Minneapolis, Minn., U.S.A.

Palmer College of Chiropractic,
1000 Brady St., Davenport, Iowa, U.S.A.

Texas Chiropractic College,
San Pedro Park, San Antonio, Texas, U.S.A.

Western States Chiropractic College,
1536 S.E. 11th St., Portland 14, Oregon, U.S.A.

On se fera une idée de la formation offerte par un collège accrédité de chiropratique en examinant le programme d'études du seul collège de chiropratique du Commonwealth britannique, le Canadian Memorial Chiropractic College, de Toronto, au Canada. Il a été fondé à la mémoire de D.-D. Palmer, le découvreur de la chiropratique. Les cours ont commencé le 18 septembre 1945, 50 ans jour pour jour après le premier ajustement chiropratique. Le Collège est la propriété, et il est sous le direction, de l'Association du Canadian Memorial Chiropractic College et il détient sa charte en vertu des lois de l'Ontario. Cette association comprend des chiropraticiens de tout le Canada. Le cours comprend un minimum de 4,700 heures, divisées en quatre années de neuf mois. Voici la liste des sujets au programme: embryologie, histologie, anatomie (comprenant la dissection humaine), chimie (inorganique, organique et physiologique), physiologie, principes et théories de la chiropratique, hygiène et santé publique, bactériologie, pathologie, diagnostic (comprenant diagnostic de laboratoire), rayons-x (physique, technique et interprétation), premiers soins, gynécologie, obstétrique, pédiatrie, dermatologie, psychologie (normale et anormale), psychiatrie, jurisprudence et éthique. On porte un soin particulier à l'analyse des distortions de l'épine dorsale et des autres parties de l'anatomie et aux principales techniques chiropratiques pour les corriger. En outre, on peut, au choix, suivre des cours additionnels en thérapie accessoire et en art oratoire.

Un droit d'inscription de $75.00 est payable en entrant au Canadian Memorial Chiropractic College. Ce montant comprend les frais de laboratoire et de conseil administratif des étudiants pour les quatre années. La scolarité est de $500.00 par année, payables d'avance, ou d'un peu plus quand on paie par trimestre ou par mois. Les manuels et les instruments coûtent en moyenne de $75.00 à $100.00 par année. Les frais de subsistance varient beaucoup, selon les goûts de l'étudiant, mais en moyenne ils semblent être de $15.00 par semaine en montant. Quelques bourses sont à la disposition des étudiants. Une d'elles pour la meilleure thèse de 1,000 mots ou plus donne droit à un an de scolarité. M. J.-M. Wallace, d'Oakville, en Ontario, donne une bourse de $250.00 à chacun des étudiants des trois premières années qui obtient les meilleurs points et une autre bourse de $250.00 au diplômé qui a obtenu les meilleurs points dans toutes les phases de l'anatomie. Le prix du Dr Walter Sturdy est offert à la graduation à la personne qui a obtenu la plus haute moyenne dans toutes les matières durant les quatre années de cours.

Il faut, pour entrer au Canadian Memorial Chiropractic College les mêmes études qu'on exige pour entrer à l'université ou à une institution du même genre. Beaucoup d'étudiants ont, comme base, un B.A. ou un B.Sc. La graduation confère à l'étudiant le diplôme de docteur en chiropratique (D.C.). Pour plus de renseignements, écrire au Registraire, Canadian Memorial Chiropractic College, 252, ouest, rue Bloor, Toronto, Canada.

Le coût d'ouverture d'un bureau de chiropratique varie grandement selon les goûts de chacun. On commence généralement modestement et on se procure de l'outillage et de l'ameublement plus coûteux à mesure qu'on avance. Bien des chiropraticiens se procurent leur propre appareil de rayons-x au coût minimum de $3,000. Ce n'est toutefois pas une nécessité puisqu'il existe bien des bureaux pourvus de rayons-x où l'on peut envoyer ses malades. Pour les malades ayant besoin de rayons-x de régions atteintes de pathologie il est désirable qu'on ait recours à un radiologiste médical. Celui-ci pourra fournir un rapport détaillé et les films. Cette coopération avec les spécialistes ne se limite pas d'ailleurs aux radiologistes. Dans la plupart des centres les tenants des différents services de santé coopèrent ensemble.

EMPLOI, AVANCEMENT, PERSPECTIVE

La plupart des chiropraticiens font de la pratique générale, bien qu'un certain nombre se spécialisent dans diverses méthodes de traitement, ou dans differents domaines de spécialisation, tels que soin des enfants, accidents dus au sport, maladies chroniques, poliomyélite etc. On a grandement besoin d'individus ayant des qualités spéciales pour enseigener dans les institutions chiropratiques. Bien que dans ce domaine, en tenant compte du temps qu'il a fallu pour y arriver, on gagne moins, on a bien des compensations et une satisfaction personnelle qu'on ne trouve pas ailleurs.

La profession ou Canada n'est pas encombrée. On compte un chiropraticien pour 16,000 de population. De grands centres n'ont pas de chiropraticiens. On pourrait sans difficulté recevoir plusieurs fois le nombre actuel de chiropraticiens. Et il y a du travail de pionnier à faire dans bien des pays en dehors de l'Amérique-du-Nord. Il y a actuellement très peu de chiropraticiens dans les îles britanniques, en Australie, en Nouvelle-Zélande, en Europe, en Afrique et en Asie. A ceux qui cherchent de nouveaux horizons, la chiropratique offre des possibilités illimitées.

RÉMUNÉRATION

Dans toute profession où il faut se faire une clientèle les revenus sont ordinairement bas les premières années. Le rythme d'augmentation des revenus dépendra de l'initiative dont fera preuve l'individu en bâtissant sa clientèle et de la réputation que lui vaudra son habileté professionnelle. Les revenus augmentent à mesure qu'on prend de l'expérience, et ils ne diminuent pas nécessairement parce qu'on vieillit. Cela s'applique aussi à la chiropratique. Le revenu provient d'honoraires et il ne se continue donc que tant qu'on est en pratique. Les conditions économiques, le genre de localité choisie influent aussi sur le revenu du chiropraticien. Il devient très variable dans un centre où il n'y a qu'une seule industrie où l'embauche varie avec les saisons. Le revenue net variera entre $3,000 par année pour un commençant moyen et jusqu'à $20,000 et davantage dans des cas exceptionnels. On peut chiffrer par $8,000 par année à peu près le revenu d'une clientèle établie. La durée d'activité dans ce domaine est considérable . Bien des chiropraticiens sont en pratique depuis 35 ans et davantage.

On ne devrait pas devenir chiropraticien dans le but de s'enrichir. A moins d'être certain d'aimer ce travail et de se fixer comme idéal de servir l'humanité, on ferait mieux de se diriger ailleurs. Le chiropraticien retire une grande partie de ses joies du fait qu'il aide à soulager la souffrance. C'est une grande responsabilité qu'on ne trouve pas souvent quand on a une attitude mercantile.

AVANTAGES

Parmi les avantages que procure cette profession on compte celui de faire partie d'un jeune et croissante profession qui jouit de l'estime sans cesse grandissante du public. Le travail se fait dans un environnement agréable et le fait d'être en contact intime avec ses semblables est une cause de grande satisfaction. La compensation financière est ordinairement satisfaisante et elle se double de la conscience de servir la société. Fait important, le chiropraticien n'a pas de supérieur hyérarchique et il peut, dans des limites raisonnables, choisir ses conditions de travail. Et les femmes peuvent accéder à la profession sur le même pied que les hommes. A l'heure actuelle, elles jouissent même d'un léger avantage car elles ne constituent qu'une faible minorité et que bien des femmes et des enfants préfèrent se faire traiter par une femme.

DÉSAVANTAGES

Les principaux inconvénients sont peut-etre la longueur du cours et l'importance des sommes qu'il faut dépenser pour se former et établir sa clientèle. Notons toutefois qu'ils se comparent favorablement avec ceux des autres professions qui s'occupent des malades. D'ailleurs si l'outillage coûte cher, il dure longtemps.

Pour s'occuper des malades, il faut beaucoup de compréhension et de tact et faire face à de la tension nerveuse. Comme cette profession exige beaucoup de la personnalité du praticien, on ferait bien de s'assurer qu'on a l'essentiel des qualités exigées avant d'y entrer.

Comme la chiropratique est une des plus jeunes professions à s'occuper des malades on l'a critiquée et on s'y est opposé dans bien des milieux. Mais à mesure que les plus anciennes professions et le public comprennent ses principes de base cette attitude change rapidement. Les résultats cliniques obtenus chez un pourcentage sans cesse croissant de la population lui ont valu le respect sincère du public. Rares sont les régions du Canada où le chiropraticien aujourd'hui n'est pas reçu comme un homme de profession avec le respect, les privilèges, comme aussi les devoirs et obligations, d'une telle position.

COMMENT SE PRÉPARER A CETTE OCCUPATION

Celui qui songe à devenir chiropraticien doit d'abord s'examiner au point de vue qualités et aptitudes. L'amour et la connaissance de sa langue maternelle, des sciences, des mathématiques, de travaux manuels devraient entrer en ligne de compte. La dextérité manuelle et l'habileté dans ce qui touche la vue et le doigté sont aussi nécessaires au chiropraticien qu'au chirurgien. Le talent de se mêler aux gens, de se faire accepter en société se révèleront dans l'activité extra-scolaire de l'étudiant en perspective. Les qualités de chef, l'initiative, la stabilité émotive ont leur importance, tout comme l'habileté de préparer et de diriger un programme de travail personnel.

On devrait étudier d'autres sources de renseignements tels que dépliants, périodiques et catalogues des collèges. Les chiropraticiens en pratique pourront aussi donner des renseignements utiles. Quand c'est possible il est bon de visiter le collège de son choix, de parler au directeur, de voir l'aspect physique de l'institution. Faute de mieux, un étudiant en dernière année de chiropratique peut aider à vous renseigner.

OCCUPATIONS CONNEXES

Etant une des plus jeunes et des plus progressives professions s'occupant des malades, la chiropratique est reliée, à différents degrés, aux autres branches telles que la médecine, l'art dentaire, l'optométrie, l'ostéopathie, la podiatrie etc. et la coopération existe, la plupart du temps, entre les praticiens de ces diverses professions. Le chiropraticien a la formation diagnostique nécessaire pour déterminer si un cas relève de lui ou s'il doit être dirigé ailleurs. Les exemples de coopération entre professions sont fréquents et ils se font évidemment dans le plus grand intéret des malades.

POUR PLUS DE RENSEIGNEMENTS

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Cette monographie du Centre d'Orientation du ONTARIO COLLEGE OF EDUCATION *a été préparée par D. C. Sutherland, D.C., Secrétaire de l'Association chiropratique canadienne, Toronto, Ontario, Canada, et éditée par M. D. Parmenter.*

RENSEIGNEMENTS SPECIAUX CONCERNANT CETTE OCCUPATION DANS:

Province, Ville, Village ou autre région

(Nombre d'employés, conditions de travail, possibilités de formation, possibilités d'embauche, règlements spéciaux, rémunération, tendances locales etc.) Ces renseignements peuvent etre fournies sur une feuille annexée.

APPENDIX 3

Ontario Chiropractic Association Fee Schedule
(approved in convention, September, 1961)

covering

services rendered and generally available
in the average chiropractic office

Calls:-

1.	First office or house call	$3.00 to $10.00
2.	Subsequent office calls	$3.00 to $ 5.00
3.	House calls	$4.00 to $ 6.00
	(over two miles, add 50¢ per mile, one way)	

Procedure Fees:-

1.	Haematology		
		Blood Count	$ 5.00
		Haemoglobin	$ 1.00
2.	Urinalysis		$ 2.00
3.	Physical Examination		$ 5.00
4.	Cardiovascular Examination	up to	$16.00
5.	X-ray (a) Skull		$15.00
	(b) Facial bones		$10.00
	(c) Mandible		$10.00
	(d) Shoulder Girdle or Clavicle		$12.00
	(e) Chest - flat film		$ 6.00
	- AP and lateral		$10.00
	(f) Ribs - Local area, two views		$10.00
	(g) Sternum		$10.00
	(h) Cervical spine		$15.00
	(i) Thoracic spine		$15.00
	(j) Lumbar spine		$15.00
	(k) Complete spine, sectional		$35.00
	(l) Full spine - AP		$15.00
	(m) Pelvis		$15.00
	(n) Hip Joint		$15.00
	(o) Fingers or Toes		$ 5.00
	(p) Hand		$10.00
	(q) Foot		$10.00
	(r) All other extremity parts		$10.00

APPENDIX 4

MANIPULATION IN BACK PAIN

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THAT MANIPULATION will relieve back pain in many instances, few will argue. There the agreement ends. Those who manipulate swear by it. Those who don't, condemn it. Those who don't manipulate warn of all the catastrophes that can result from the practice, while the patients of those who do flock to their offices for relief.

This conflict comprises one of the medical anomalies of the twentieth century. The standard medical treatment for lumbago and other acute backache is bed rest and sedation, counter-irritation and heat, possibly supplemented by massage and injections of procaine. The doctor whose therapeutic armamentarium is thus limited is at a disadvantage; his patients soon find that in the majority of instances they can get rapid relief elsewhere without the loss of time. This, from any of the large number of irregular practitioners who can so often relieve the pain but whose training has made them mechanics, unable to make a diagnosis because of a lack of training in pathology. As a result, fantastic claims are often made as to the conditions they cure.

The purpose of this paper is to examine this anomalous situation, to speculate on the etiology of the pain, and to describe a method of manipulation that for 20 years has brought gratifying results with none of the disasters that so many predict. The reason we took up manipulation was an interest in backache, with the early discovery that many patients who failed to respond to routine medical treatment went to a manipulator and received immediate relief. This discovery was followed by acceptance of the classic advice, "If you can't whip 'em, join 'em," at least to the extent of borrowing their technique.

HISTORY

Manipulation as an art is as old as medicine. The secrets of its practitioners were usually handed down in the family. The operator himself was often attached to a monarch or a wealthy household.

Unlike the barber surgeons, the manipulators were not taken into the fold of orthodox medicine. Nevertheless, a few doctors, particularly in the United Kingdom, took up the art and some of them became great names in medicine. But their ideas were not generally accepted by the medical profession at large and, though their methods are available to all, few have taken them up.

That manipulation can bring comfort to mankind there can be no doubt. There are few communities on this continent big enough to support four or five doctors that do not also support one type or another of practitioner who treats by means of manipulation. That they often relieve pain and discomfort is evidenced by the fact of their continued presence and prosperity. If the patient is suffering from what they treat, the patient will be relieved. That they can cure any condition is questionable. Most symptoms that will respond to manipulation are due to the presence of degenerative disease. This can be managed, or its progress even arrested, but it is not cured. The diagnosis and treatment of other organic disease must be based on a knowledge of current pathological concepts, and few unorthodox manipulators have this. Without this understanding they treat conditions that are beyond the scope of their method and so delay the institution of proper treatment or even do harm. Thus they have rightly earned discredit with the medical profession, though it is unfortunate that their art is included in this disrepute.

ETIOLOGY OF BACKACHE

There is a great mass of medical literature devoted to the study of the causes of backache and the referred pain that so often accompanies it. It has been demonstrated that irritation of any of the deeper structures in the back can cause backache together with referred pain. Thus irritation of muscles, ligaments, synovium, dura and bone can cause backache and referred pain.

The pattern of reference has been indicated by Feinstein and associates,[1] who by injecting hypertonic saline into the intervertebral ligaments of medical students mapped out the areas of reference for the whole spine. They found that the pattern of referred pain tended to be segmental but showed considerable overlap and differed in location from the conventional dermatomes. It was found that stimulation of the upper eleven dorsal nerves, for instance, resulted in pain referred to the chest and abdomen and that this pain often mimicked visceral pain. Stimulation of the twelfth thoracic segment, however, gave referred pain into the hip region. Thus the areas of reference are often quite bizarre.

A striking example of the bizarre pattern of reference is seen in the dorsal area. A patient complains of a pain extending down the arm. Examination sometimes shows a tender nodule just to the side of a dorsal spinous process somewhere between T1 and 5. Pressure on this nodule aggravates the pain in the arm. Injection of the nodule with procaine relieves it. Since no nerve is known to extend into the arm from say, T4, the method of production of the pain into the arm is not known. It is assumed that the irritation of the fourth dorsal root sets up an irritable focus in the

cord at a more active level and thus gives rise to a referred pain down the arm. The tender nodule is the so-called area of fibrositis, which is presumably a very limited area of muscle spasm since it and the referred pain will often instantly disappear on manipulation. It is this type of referred pain that gives rise to erroneous diagnoses of pleurisy, heart disease, appendicitis and other conditions; when the pain is relieved by manipulation, support is given to the lay-manipulators' claim that they cure these conditions.

Although any of the deeper structures in the back can give rise to symptoms, since the majority of backaches will respond to manipulation, it is probable that the origin of the pain lies in relationship to one of the joints, either the zygapophysial joint or the intervertebral disc.

Zygapophysial Joints

In these, adhesions may produce symptoms. Mennell,[2] who spent some years in America, believed this although he also claimed that there was a binding of joint surfaces which could be freed by manipulation. Kraft and Levinthal[3] describe "facet synovial impingement"—a nipping of redundant synovium between joint surfaces. Harris and Macnab[4] have shown the frequency of degenerative changes in the posterior joints but do not relate them to symptoms.

It is our belief that backache arising from these joints is rather rare. We had two cases in which we thought that the pattern was that of mechanical disturbance in one of the posterior articulations. Axial views through the minor articulations in each showed evidence of a loose body. One patient was referred for surgery and the condition proved to be osteochondritis dissecans. The other refused operation and has been lost sight of. Very rarely cases are seen with arthrosis in the minor articulations where the symptoms justify the assumption that the pain arises from them.

Intervertebral Discs

Since the discovery in 1934 by Mixter and Barr that sciatica could be produced by pressure of a protruded disc, much attention has been focused on this structure. More and more authorities are leaning to the belief that disturbances in the disc mechanism are responsible for the majority of backaches,[5] though, because of the nature of the condition, this belief is difficult to prove.

In 1945, Cyriax[6] put forward the concept that lumbago was due to pressure on the dura mater by a central displacement of the intervertebral disc. If the disc is displaced further laterally, he claims, the pressure falls on the dural investment of the nerve roots and gives rise to vague referred pains which are not entirely segmental in their reference. Still further protrusion of the disc causes pressure on the nerve parenchyma itself, with resulting segmental and geographic distribution of pain and often reflex changes.

According to Cyriax[7], the success of manipulation in some cases of backache but not in others depends on the composition of the portion of disc that is producing the pressure. The annulus fibrosus is a double crescent of fibrocartilage, very similar to the meniscus in the knee joint. As in the knee, this crescent of cartilage can be torn or undergo degeneration and then be displaced, giving rise to pain; as in the knee joint, it can frequently be manipulated back into a position where it no longer produces symptoms.

The main differences are that, because of the fact that the back is so unsuited mechanically to the upright position and because the resultant inherent strain causes early degeneration of the intervertebral disc, [4] [8] this occurrence is much commoner in the lumbar region. Also, the knee joint itself is a very sensitive structure; the disc and its investments are not, or only slightly so.[9] The sensitive structure, the dura, lies outside the joint—hence the vagueness of symptoms and confusion in their interpretation.

As in the knee joint, this pain produced by a displaced and impacted fragment of annulus will probably come on instantaneously at the time of some strain or faulty movement in the flexed position; if it can be relieved, this will probably happen just as quickly.

The other constituent of the disc, the nucleus pulposus, is a mushy semi-solid body which can be said to ooze rather than slip. If there is a breach in the annulus but it is not causing pressure on the dura or nerve roots, no symptoms will result. However, under suitable circumstances, this mushy nucleus can, over a period of hours or days, ooze out from its normal position and come to press on the dura centrally, thus causing lumbago. If it moves further laterally, it will press on the dural extension which embraces the nerve root, and produce vague pains in any of the regions from thoracic cage to knee. Further lateral movement of the nucleus may result in pressure on the nerve parenchyma with resulting pain of sciatic distribution with positive neurological signs. Or in primary sciatica, the nucleus has been displaced laterally without pressing on the dura on its way.

This theory admirably fits the natural history of the majority of backaches and explains the response to manipulation. It also explains why manipulation is at times unsuccessful and why traction will then frequently relieve the condition.[10]

It may not be that the nucleus oozes. We know that by twenty years of age the nucleus has started to degenerate[4] [8] and by fifty it is pretty well cicatrized. Yet traction may relieve backache in patients who are in their seventies. It is more probable that the distraction of the vertebral bodies permits the reposition of fibrillated fragments of cartilage, particularly since manipulation is often successful when associated with traction.

Though this theory may not be widely accepted, there is much to support it.[7] [11] Verified or not, it makes an excellent working hypothesis for the physician who wishes to treat backache. The history of the development of the backache, and the findings on physical examination, are readily explained in this manner while the response to treatment follows accurately the postulates of this theory.

Of course, it is recognized that a multitude of other conditions can cause backache and referred pain, but these are rare and one might spend a lifetime in general practice without encountering one of them. If any are present, manipulation will do no harm, and failure to respond is the indication for further investigation.

SELECTION OF CASES

Once one accepts the thesis that backache can arise in this manner, the diagnosis is relatively easy. The majority of cases either active or chronic will fall in this category. Sprain of the back coming on after only bending, or lifting a light weight, becomes disc syndrome. The true sprain of the back—sprungback—with tear of the interspinous ligament is produced by tremendous force and is a relatively uncommon injury.

Lumbago, whether coming on for no apparent reason or following a period of stooping, is disc syndrome. Meralgia paræsthetica, usually attributed to pressure on the nerve roots by osteophytes on the lumbar bodies, is disc syndrome. So is pain in the buttock, in the inguinal region and along the iliac crest; that is, in any of the lumbar areas of reference. Pain referred just lateral to the sacroiliac joint is very common. It is this pain that made sacro-iliac disease a favourite diagnosis in previous years, and manipulation re-

lieved it. However, the sacro-iliac ligaments are not tender as they would be in subluxation, and it is our belief that this pain arises from disc disturbance.

According to Burke, "*In an otherwise well patient*, a disc lesion is present if there is pain in any part supplied by a spinal nerve when the signs of inflammation are absent." This is a good rule to follow. "The otherwise well patient" rules out the backache from organic causes—ankylosing spondylitis, Paget's disease, tuberculosis and neoplasm, as well as backache referred from the abdomen and pelvis.

The only other common condition to be ruled out is backache due to faulty posture. One of us in 1951 published an article[12] stating that out of 200 cases of backache, faulty posture had been responsible for 47%. Since we have embraced the present theory, that percentage has been reduced to between 4 and 5%. We believe that the good results obtained in that group were due to the exercises prescribed, which by building up the muscles render the disc more stable. This fact is well recognized: that no matter what the theory as to the cause, exercises designed to build up the back and abdominal muscles are of the greatest value.

Since we accepted this theory two years ago, we have seen over 2000 cases whose presenting complaint was pain in the back, or pain that arose from the back. In these, a diagnosis of disc syndrome was made in over 90%. The response to treatment followed a pattern that could be predicted by this theory and appeared to justify the diagnosis.

The history will frequently indicate whether manipulation will be successful. Pain coming on instantaneously on a bend or twist is usually considered to indicate displacement of a fragment of annulus that can be manipulated back into place. The story of a nuclear protrusion is different:- the patient may think he has wrenched his back but in a few minutes the distress disappears; maybe that evening or maybe days later a sharp stab of pain is felt when rising from an easy chair. This latent interval is considered to be the time required for the nucleus to protrude sufficiently to cause pressure. The medico-legal implications are obvious.

By and large, the longer the pain has been present, the less likely is manipulation to succeed. This applies particularly to sciatica if it is of over six months' duration. Other pains, present for years, are often relieved almost immediately.

On examination, further information as to the probable success or not of manipulation is obtained. Examination is carried out in the three planes of movement: antero-posterior, lateral and rotational. Flexion and extension and lateral bending are tested in the upright, torsion in the supine position; straight leg raising is tested in both. In the prone position, muscle spasm and tenderness are sought. (The assumption here is that a general physical examination and suitable tests to rule out organic disease have been carried out.)

Increasing pain on flexion is thought to indicate the presence of a protruded nucleus and makes the success of manipulation less likely. A painful arc—that is, pain on partial flexion and relief by full extension—is considered diagnostic of a fragment of articular cartilage (i.e., annulus) loose in the joint.[7]

If there is sciatica with marked lateral deviation of the spine, manipulation will probably be unsuccessful, particularly if there is more than one neurological sign. If lateral flexion towards the painful side increases the pain in the back or if movements other than flexion increase the referred pain, it is improbable that manipulation will help.

In the prone position, the important procedure is palpation. In every case we have seen there has been muscle spasm, and the disappearance of this muscle spasm is the objective indication that the manipulation has been successful.

X-ray Examination

Ideally, x-ray examination should be made in all cases, but economics is a factor. In the sudden acute attack, it can possibly be dispensed with; but if response to treatment is not rapid, it should be carried out.

The radiographs are frequently negative, particularly in patients under 30. The lipping of the vertebral bodies which has been named osteoarthritis is now known to be an ossification in the vertebral ligaments, a protective mechanism to an unstable disc,[13] and in itself is not productive of symptoms. This has been shown by Hussar and Guller[14] who surveyed the clinical and radiographic findings in 500 male hospital employees. No correlation could be found between the severity of the radiographic findings and the incidence and severity of pain. Seventeen had narrowed disc spaces but none of them had radicular symptoms. Of 13 who had pain referred to the lower extremities, 10 had negative radiographs while the other three showed lipping without narrowing of the intevertebral spaces. The conclusion was that positive radiographic changes are related to age, body weight and physical work, and not to pain.

Radiographic evidence of osteoarthritis, or arthrosis, is occasionally seen in the zygapophysial joints but we feel that the number of cases with symptoms is very small.

Contraindications

There are few contraindications. Obviously, if the pain is too great, manipulation cannot be attempted. Cyriax warns against manipulating where there is danger of compressing the fourth sacral root, and where there is: (1) bilateral sciatica; (2) referred coccygodynia; (3) paræsthesia in the saddle area, perineum, genital area or rectum; (4) interference with bladder function related to the lumbago or sciatica; (5) impotence. These cases are very rare.

Manipulative Technique

This follows a definite pattern and after each manœuvre the practitioner examines the patient to assess the result. First, the back is palpated to determine any change in the muscle spasm. Disappearance of spasm usually indicates that the condition has been corrected. Then the patient is asked to stand and the movements outlined under examination are tested. If the pain has almost entirely disappeared, no further manipulation is (photo 1) carried out. There is usually some residual discomfort for a few hours after replacement of the displaced tissue. If improvement is slight, and manoeuvre is repeated until no further change is produced. Always it is borne in mind that the objective is to relieve pain, not produce movement. A rigid spine is often a painless one. If the patient complains of more pain, the same procedure is not tried again and manipulation may be discontinued or another approach tried, depending on the opinion and experience of the operator.

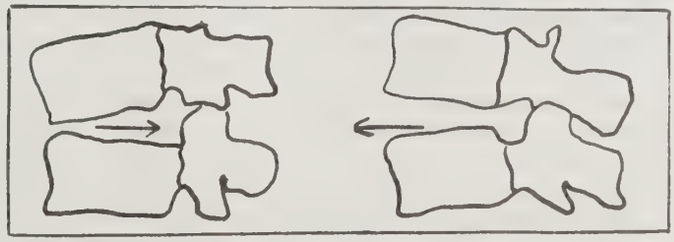

Fig. 1.—Diagram illustrating effect of flexion on the position of the intervertebral disc.

Manoeuvre 1. Hyperextension by Means of Pressure on the Spinous Processes (Fig. 2):

Reference to the diagram (Fig. 1) will make it apparent that downward pressure applied to the spinous process will tend to cause distraction of the vertebral bodies, the apophyseal articulations acting as the fulcrum. This slight increase in the space may bring about disimpaction of the fragment (photo 2) of meniscus; or it may permit the protruded nucleus to return to its bed.

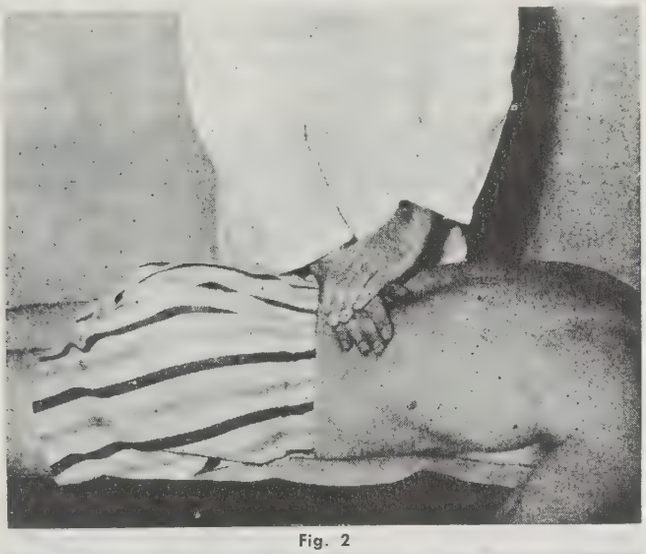

Fig. 2

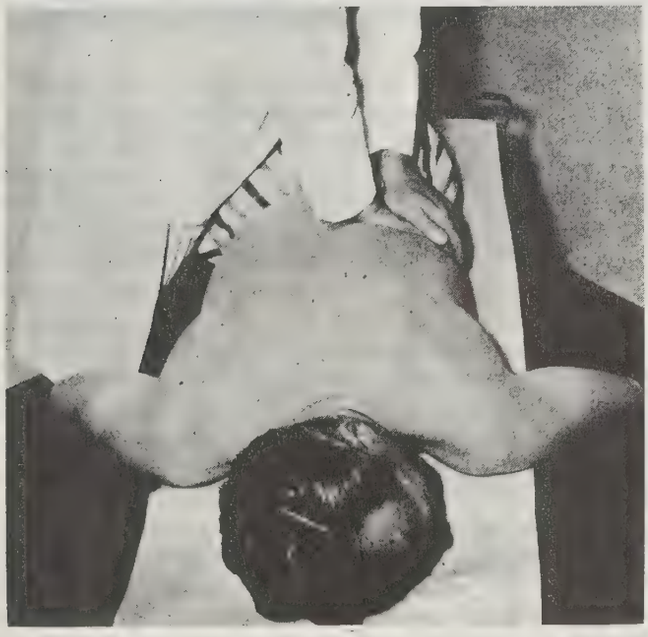

Fig. 3

(a) *The thrust.*—The right hand is placed over the spinous process, tilted in such a manner that the mid-shaft of the fifth metatarsal is in contact with the bone. The arm is straight. The force is increased by applying the left hand over the right. Pressure is applied by leaning forward so that part of the body weight is transmitted to the spinous process through the arms and hand. This is done in a series of jerky motions, starting in the upper lumbar area and working downwards to the area where the majority of displacements occur. If no increase in pain occurs, the thrust may be applied with all the force one can muster. During this procedure the operator or the patient will often feel or hear a click or snap. This is not a necessary accompaniment of the procedure, and relief is frequently obtained without it.

(b) *The prolonged press.*—The positions of the patient and the operator are the same, but in this manœuvre the operator leans heavily on the spinous process for a period of from one to three minutes (by the clock; time passes very slowly in this position). This occasionally will bring relief, thought to be due to the return of the nucleus to its bed. In any event, we have found it a useful therapeutic test, as usually the patient will say that his pain is somewhat easier; however, if the muscle spasm persists, one knows that the condition is not corrected and the patient is sent for mechanical traction.

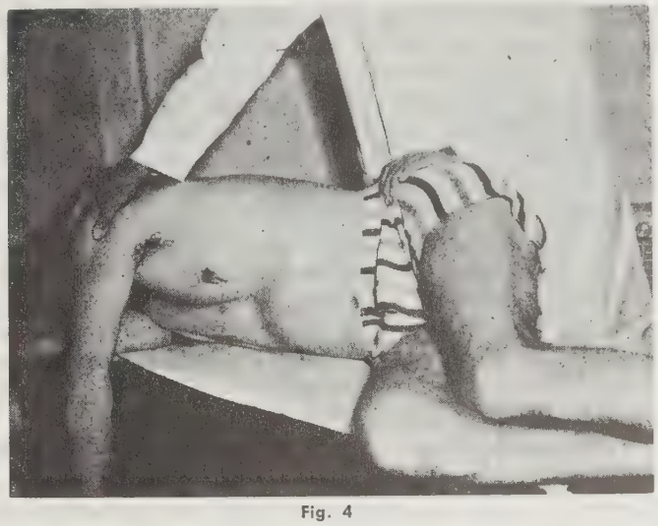

Fig. 4

Interestingly enough, many patients have reported that when they have felt symptoms coming on they have asked some member of the family to carry out this procedure and have obtained relief. It is a well-known fact that in disc syndrome, no matter what the treatment, the sooner it is instituted the quicker the recovery.

Manoeuvre 2. Rotation by Pressure:

In this manœuvre, force is applied in the same way as in Manœuvre 1, except that the heel of the hand is placed lateral to the spinous process (Fig. 3). If there is tenderness, and there usually is, pressure is applied to the less tender side. After this manipulation the results are again assessed.

Manoeuvre 3. Direct Rotation:

(a) *Without leverage* (Fig. 4).—The patient lies on the side. One hand is placed on the anterior part of the iliac crest, the other on the shoulder. Rotational force is then applied. As well, some distracting force can be applied by a pull in the caudad direction on the iliac crest.

(b) *With leverage* (Fig. 5).—The patient lies supine. One heel is placed against the inside of the opposite knee. The operator grasps the flexed knee with one hand, the shoulder on the same side with the other. Powerful rotational force can thus be applied by fixing the shoulder and carrying the knee to the opposite side. This can be a constant tension or the slack can be taken up and a sharp thrust carried out. Usually torsion to one side is painless or much less painful. Torsion should first be tried on the less painful side. To rotate in the opposite direction, the procedure is reversed.

Again the results are checked as in Manœuvre 1. If satisfactory, nothing more is done. If not, the decision is made whether to proceed or not.

Manoeuvre 4. Lateral Flexion:

Occasionally if the above steps fail a fragment of annulus is disimpacted by forceful lateral flexion: (1) with the patient in left lateral decubitus and the force applied by elevating the legs; (2) with the patient supine, the thighs elevated to ninety degrees, and the knees flexed to the same

extent. By grasping the knees in the flexure of the elbow, the operator can produce considerable lateral flexion force.

Manoeuvre 5. Rapid Distraction:

Occasionally when all the above have failed, we have succeeded in relieving symptoms by having the patient lie supine; one leg or the other or both are grasped above the ankle and a sudden quick jerk is given. One can only imagine a fragment of annulus being disimpacted in this way.

These are the manipulations that we have found most valuable. Many others are described and the manipulative response to the problem presented will depend on what the operator considers the mechanics of the displacement, his experience, and the response to the preliminary manœuvres.

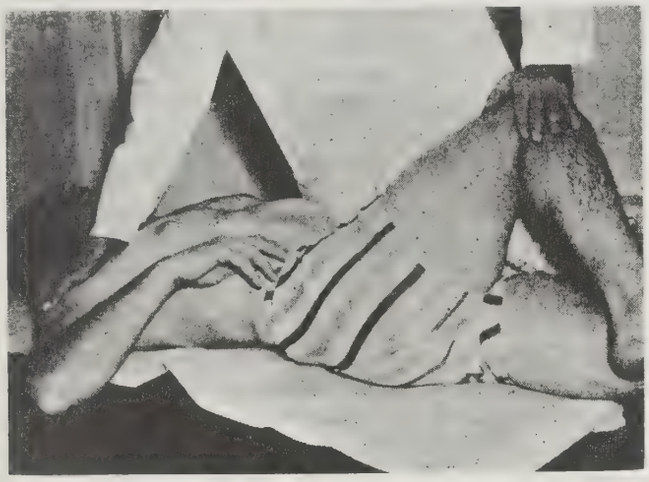

Fig. 5

Sometimes, if the pain is severe or there is a great deal of muscle spasm, the manipulation may be preceded by the application of heat or by massage. We have not manipulated under an anæsthetic for years. It is a blind procedure and all opportunity for assessing the response to the various movements is lost. Often when it is said that the patient got worse despite manipulation under anæsthetic, one wonders whether it was not because of it.

After-treatment

The main purpose of after-treatment is prevention of recurrence. Flexion will tend to cause this (Fig. 1). The patient is usually shown on the skeleton the mechanics of his condition and advised how to sit and stand, how to pick things up, and how to put on shoes and socks—always avoiding flexion. Women are advised to get someone else to wash their hair, as so often a painful episode is brought on by this procedure. All are advised to carry out extension exercises while lying on the abdomen. This, it is thought, forces the nucleus and fragments of annulus forwards into the interspace where they do not impinge and are less likely to be protruded. Furthermore, good lumbar muscles protect against the excessive flexion which can result in protrusion. For those who do heavy work, a support is often required.

Patients who have had two or more attacks per year for years now advise that since they have adopted these rules they are symptom-free as long as they follow them.

Very occasionally, after one feels by testing movements that correction has been obtained, there is some residual pain. If this continues for more than 24 or 48 hours and if a sensitive nodule can be found, it is injected with procaine, or heat and massage may be recommended. Cyriax advises epidural procaine for chronic pain with good movement, attributing the pain to a chronic bruise of the dura which may be treated like chronic bruises in other situations.

Results

In our enthusiasm, we manipulated all cases but the limitations soon became apparent as outlined under the heading "Selection of cases". In straight backache, where the history suggested an annular lesion, relief was obtained in just under 75%. Cyriax claims a higher percentage. It is probably a matter of skill and experience. If manipulation is to succeed, there is an even chance that it will do so at the first sitting. However, if there is improvement on the first attempt, we will try again the next day. Four attempts is our limit. If the pain is not relieved, the patient is then sent for mechanical traction.

If there is evidence of nerve root irritation, the chances of manipulation succeeding are cut in half. Again, if manipulation fails the patient is sent for traction.

Pain so severe as to keep the patient in bed is no contraindiction to manipulation. Possibly the chances of relief are increased, as it is well known that the height of the individual increases after a few hours in bed, mostly because of an increase in the intervertebral space. On a theoretical basis the wider space would increase the chances of reducing a dislocated fragment of cartilage. Certainly we see many patients who are afraid to make an effort to get out of bed but who, following manipulation, get up and move with ease. Others who have failed to respond to manipulation at first, do so after a day or two in bed.

It is to be noted that one can only undertake to relieve the pain. From the nature of the lesion it is apparent that cure cannot be effected by these means; as in other herniations, reducing the hernia does not cure it. Nor does one attempt to cure arthrosis in any joint. It is managed and an effort made to relieve the pain; wear-and-tear should be reduced and eventually the chances are that the condition will become painless. Similarly in lumbar disc syndrome no claims are made of cure. After the attack is relieved, the emphasis is a prophylaxis through an understanding of the mechanics of the displacement. Since attacks are not nearly as common after 50, it is probable that by about that time the cicatricial process will have fixed the disc in position.

Much is said about the hazards of manipulation. We do not know what they are. Cases have been reported of necrosis of the cord due to pressure from a prolapsed disc, but these were in the cervical and dorsal regions. Possibly the fear is of displacing the disc to the point where it will be impacted and laminectomy will be required. In any we have referred for laminectomy, the pattern did not change from the beginning and it was our feeling that the protrusion when first seen was irreducible. We have seen many cases that have been treated by irregular practitioners who manipulate much more vigorously than we do, and none of them has required laminectomy as they responded satisfactorily to traction. It may be that manipulation can cause harm but we have not seen it. It is our belief, based on long experience, that manipulation is no more beset by hazards than many other recognized procedures in therapy, while its results are often more dramatic and sure. For example, the injection of procaine is recommended in certain types of backache, always with the admonition that there should be no hypersensitivity to procaine. We believe that the bad results from manipulation are no more frequent than the bad results from procaine.

If available, a physiotherapist trained in these methods can carry out the manipulation. Our thanks are due to Mr. C. R. Morton, physiotherapist, of Red Deer, who has been the operator in many of these cases.

Summary

A concept of the mechanism of production of many backaches is presented. This offers a rational approach to treatment by mechanical methods—either manipulation or

mechanical traction. The selection of suitable cases is discussed and some of the more successful manipulative procedures are outlined.

In our hands this approach to backache has proved most gratifying and more important, has brought comfort to a large group of patients who have not been able to achieve it before.

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Box 309,
Red Deer, Alta.

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RÉSUMÉ

Les manipulations peuvent souvent soulager le lumbago plus rapidement que le traitement conservateur fondé sur le repos, la sédation, les applications de chaleur ou l'anesthésie locale, mais cependant les rares médicins qui ont eu recours aux manipulations dans l'exercise de leur profession ont presque toujours senti le fagot au nez de leurs confrères. La plupart des symptômes qui répondent aux manipulations sont causés par des processus de dégénérescence. L'irritation des structures profondes du dos peut causer des irradiations. Les muscles, les ligaments, la synoviale, la dure-mère et les os peuvent donc être incriminés. Cependant les structures le plus souvent lésées semblent les articulations zygapophysaires et les disques inter-vertébraux. Les lésions de ces structures ont des répercussions douloureuses à des endroits inattendus comme l'a montré l'expérience de Feinstein. Ces manifestations atypiques ont donné lieu à de nombreux diagnostics erronnés et sont à la source des prétendues guérisons mirobolantes que réclament de vulgaires tripoteurs.

Les adhérences des articulations zygapophysaires peuvent quelquefois mais rarement causer des symptômes par pincement de la synoviale. Les lésions discales sont par contre reconnues comme étant la cause de la majorité des lombalgies. Les manipulations ont un certain succès dans les cas de déplacement de l'anneau fibreux dont la consistance fibro-cartilagineuse lui permet de réintégrer sa position normale. Les auteurs comparent ces lésions à celles du ménisque du genou. Le noyau gélatineux de consistance diffluente coule de sa position normale et peut difficilement la regagner par l'effet de manipulations. La simple traction dans ce cas peut alors apporter quelque amélioration. La douleur dans ce genre de lésion provient de la pression exercée sur la dure-mère ou sur les racines nerveuses. Ces hypothèses servent bien la théorie sur laquelle s'appuient les fervents de la manipulation.

L'acceptation des ces prémisses rend le choix des cas relativement facile, car, sauf peut-être pour une posture vicieuse, une douleur lombaire chez un malade qui par ailleurs est en bonne santé élimine par le fait même la spondylose, la tuberculose, la maladie de Paget, le néoplasme et autres états de la même gravité. L'anamnèse contribue aussi à préciser l'étiologie de la lésion car les circonstances de l'apparition de la douleur selon qu'elle est brusque ou insidieuse, et sa nature même, intermittente ou continue, aident à poser le diagnostic. L'examen radiologique quoique souvent négatif devrait toujours être pratique. On doit se rappeler cependant qu'il n'existe aucune corrélation entre l'apparence radiologique qui réflète plutôt l'âge, l'obésité ou le travail physique et la douleur qu'accuse le malade.

Les contre-indications aux manipulations sont rares. Elles reposent surtout sur le danger de comprimer la quatrième paire sacrée. Les manipulations proprement dites comprennent l'hyperextension par pression soudaine ou prolongée sur les apophyses épineuses; la rotation par pression, la rotation directe avec ou sans point d'appui; la flexion latérale et la traction subite.

Le seul but que doit se proposer le manipulateur est de supprimer la douleur car il n'est pas question de guérir la lésion. L'aspect le plus important des suites du traitement consiste à prévenir le retour de cette douleur par l'observance de précautions ou le port de bretelle, corset ou autre prothèse semblable. Dans les douleurs dorsales sans complications le soulagement obtenu par les auteurs atteint presque 75% des cas; dans les lésions nerveuses les chances d'amélioration son réduites de moitié. D'après les auteurs le danger des manipulations a été exagéré; cette formule de traitement ne ferait courir plus de risques au malade que l'injection de novocaïne telle que préconisée dans certains milieux.

APPENDIX 5

"Chiropractic Theory" — Weiant

STATE OF New York
COUNTY OF New York

C. W. Weiant, D.C., Ph.D., being first duly sworn according to law did depose and state that he is the author of the article "Chiropractic Theory" and that the attached copy is a true and correct reproduction of the aforesaid article.

"C. W. Weiant, D.C., Ph.D."
Affiant

Sworn and subscribed before me this *16* day of *April*, 1959.
(Seal)

"Nathan H. Perelman"
Notary Public for the State
of New York
Qualified in New York County
No. 31-3060000
Commission expires March 30, 1961

Background and qualifications of the author, C. W. Weiant, D.C., Ph.D.

1. He was a student of chemical engineering at Rensselaer Polytechnic Institute, 1915-1918;
2. He was graduated from the Palmer School of Chiropractic, Davenport, Iowa, in 1921, with the degree of Doctor of Chiropractic;
3. He was a lecturer in chemistry and public health at the Texas Chiropractic College, San Antonio, Texas, 1921-1925;
4. He was an instructor in chemistry and physiology, Eastern Chiropractic Institute, New York, N.Y., 1928-1944;
5. He was a Research Assistant of the Smithsonian Institution, 1939-1941;
6. He was awarded the degree of Doctor of Philosophy by Columbia University, New York City, in 1943;
7. He was a lecturer in anthropology at Hunter College of the City of New York, 1943-1951;
8. He has been Dean of the Chiropractic Institute of New York since 1944;
9. He is a fellow of the American Association for the

Advancement of Science and of the American Anthropological Association;

10. He is listed in the directories, American Men of Science, International Director of Anthropologists and Who's Who in American Education.

CHIROPRACTIC THEORY

By C. W. Weiant, Ph.D., D.C.

Tenable chiropractic theory is not to be gleaned from perusal of brochures prepared to introduce the subject of chiropractic to laymen. Nor can it be learned from the writings of early chiropractors. The subject is highly technical and involves the findings of both medical and chiropractic research centers of the past half century. As in every department of science, chiropractic theory is not static. New researches constantly compel revisions. What is expounded herein represents, I believe, the consensus of the keenest minds in chiropractic today.

In recent years there has been increasing interest in chiropractic on the part of inquiring physicians. While these men have approached the subject with an open mind and often stumbled upon important chiropractic truths, their results might well be described as fragmentary; broad fundamental concepts have escaped them. In order to remedy this situation, Dr. F. W. H. Illi, director of the Institute for the Study of the Statics and Dynamics of the Human Body (the research center of the European Chiropractic Union) at Geneva, Switzerland, has prepared the first of what is intended to be a series of brochures on chiropractic addressed to interested members of the medical profession. It will be appropriate to begin my discussion of chiropractic theory with a translation of some of the most significant portions of this brochure.

Contrasting the ways in which the life of early primitive man tended to strengthen his as yet incompletely developed vertebral column and keep it vertical, with the mode of life of modern man, which constantly menaces this column, Dr. Illi writes: "Our constantly increasing comfort more and more excludes physical effort. This state of affairs is the cause of justifiable concern with regard to the vertebral column, the expression of man's maximum efforts and physical dignity.

"The dangers which menace the human spine do not date from the present. The history of therapy teaches us in fact that in all ages healers of every sort have occupied themselves with the difficult problems which it poses. The results thereof, however, were not transcendent. Despite orthopedics and surgery, which in other domains went from success to success, vertebral therapy was still only in its beginnings at the time of the first appearance of chiropractic.

"What are the functions of the vertebral column?

"Before answering this question with exactitude, it is necessary to differentiate the spine of quadrupeds (horizontal column) from that of man (vertical column).

"The functions of the *horizontal* column are the following:

1. Protection of the spinal cord and nerves.
2. Mechanical accommodation to movement.
3. Point of support for the trunk.
4. Protection of the thoracic cage and respiratory organs.
5. Flexible support and point of forward attachment for the cranium.

"The *vertical* vertebral column, besides the 5 above-named functions, must assume other tasks:

"1. It serves as a support to the head. In this way the point of attachment of the head is subjected not to tension, as is the case with the horizontal column, but to compression due to the weight of the head.

"2. The vertical column, rich in curves, serves as a spring which dissipates shocks.

"3. The impulse given to a vertebral column by movement must be sustained.

"4. The vertebral column must facilitate the function of neuro-muscular equilibration.

"5. It must serve as a point of attachment for the levers which are the arms; the latter not only to be carried, but to be balanced in such a manner as to maintain a precarious vertical position.

"6. It must synchronize recently acquired movements, modified form, and modified locomotion.

"7. It must balance, by corresponding vertebral development, the load which increases as its base is approached.

"8. It must, by appropriate rotation, assist the body to lean forward.

"9. It must develop the new mechanical aptitude which, during walking, replaces almost completely the old antagonistic movements of the upper and lower extremeties.

"10. It must counteract the extraordinary wear to which the lumbo-sacral junction is subjected.

"11. It must carry the head and balance it.

"It is not possible to consider an organ of multiple functions the way one would regard a simple anatomical piece. The vertebral column is in reality much more than that.

"It is the center of our movements, it contains and protects the spinal cord; this center of our nervous force is influenced by everything that happens in the vertebral column and by everything to which the column is subjected. Our spine is indeed intimately linked with the nervous system, and one may really say that it is the very principle, the nucleus of our life. For life is synonymous with movement, and reciprocally, movement is synonymous with life.

"Let us add further that the vertebral column is:

(a) The etiological factor in affections which involve the column itself and in diseases striking different parts of the body.

(b) A symptomatic factor enabling one to distinguish between its own troubles and those of internal and external organs.

"In fact, any one who interests himself in the human spine must know that troubles localized in certain segments of the vertebral column provoke irregularities in the normal course of reflexes produced in definite parts of the body.

"Moreover, it is possible that internal organic affections alter, by reflex pathway, the functioning of the vertebral column as an organ of support and movement; the receptor organ sends back excitations to their point of origin: the internal or external organs, making use of the spinal pathway (cells of Dogiel), which may be considered, on the one hand, as a revealing index of morbid internal processes, and on the other hand, as the etiological factor in very numerous physio-pathological affections, the pains and contractures being the only signs of a vicious circle which only attentive physical examination will be able to break.

"In resume, the vertebral column is then:

1) An organ of support.
2) An organ of movement.
3) An organ assuring equilibrium.
4) A protective organ of the spinal cord.
5) An organ of coordination whose movements unleash reflexes.

"As an organ of support and of movement the vertebral column constitutes an anatomic unit. As a protector of the nerves and as a center of coordination, it is a functional

unit. It is therefore logical that, under certain circumstances, the functioning of one of these units may enter into conflict with functioning of the other.

"Physically, the human vertebral column, like everything else on earth that moves, is subject to the laws of mechanics, statics, and dynamics.

"Consequently, in examining a vertebral column in the orthostatic position, we perceive simultaneously, the consequences of internal organic reflexes and those due to troubles in the mechanics, statics, or dynamics, not to mention possible effects due to alterations of a psychic order. All these troubles manifest themselves as displacements, fixations or definite defective positions.

"It is certainly an error to consider the vertebral column as the origin of all diseases, but the error is no less than that which ignores the spine in seeking the etiology of the diverse affections which afflict mankind.

"Be that as it may, neither the displacement provoked by a reflex, nor that due to a static defect, should be considered exclusively as such. They may both be the expression of one and the same cause — they are even most often combined. That is why the displacement of a static order can not be compensated for, any more than the displacement of reflex origin. Their symptoms add up. Both of them ride horseback. Only the therapist capable of determining by diagnosis the origin of a displacement can break the vicious circle. To understand the cause is the condition *sine qua non* for success at the time of the adjustment. The therapist should, furthermore, be able to put an end to a displacement due to contractures provoked by an organic reflex. If he is capable, he can distinguish between displacements of reflex origin from those of static origin.

"As we have already indicated, it is to the study of these inter-dependences that chiropractic is dedicated. The chiropractor has had, over the years, the opportunity to put an end to physio-pathological reflexes; he has likewise been able to estimate the contribution of reflexes to vertebral conditions. These studies have been for him of the highest importance, because, in the course of the treatments which he practiced, it was possible for him to observe the vertebral column and to deduce therefrom the physical laws to which it is subject, to seek, and to understand.

"The Institute for the Study of Statics and Dynamics of the Human Body, at Geneva, in the course of its long years of research and efforts, claims to have succeeded not only in accomplishing this task, but also to have brought out a treatment of the vertebral column adapted to its discoveries.

"The outstanding successes obtained thanks to the new method of treatment have given to the Institute the opportunity to indulge in a critique of the teaching put forth up to that time, a critique founded upon the knowledge acquired in the course of long years of scientific research and the practice of the healing art. This study proves that numerous erroneous and disastrous conceptions still circulate in our day. We consider it our duty toward the great number of those who suffer to expose these errors and correct them.

"1. It is an error to believe that the vertebral column is fixed to the pelvis without possibility of movement. The two sacro-iliac articulations form in reality a true diarthrosis.

"2. It is an error to believe that the vertebral column can be flexed without participating in another movement. In reality every flexion is accompanied by a torsion.

"3. It is an error to believe that the spinal cord is channelized, immobile within the vertebral column; in fact it moves in a passive way with every movement of the spine.

"4. It is an error to believe that, in the sagittal plane, the human vertebral column ought to be rectilinear in order to function well. A spine mechanically intact, but presenting a scoliosis, has no need of adjustment to bring it back to the perfect straight line, so long as it functions well.

"5. It is an error to think that a static, mechanical, or dynamic defect may be corrected by immobilization with the aid of a corset or an operation. The dysfunction of one region must be balanced by the hyperfunction of another region. Thus one must correct a defect of this kind by strengthening the muscles to balance their function, creating, so to speak, a living muscular corset.

"6. It is an error to believe that by strengthening the spinal muscles in a general way one can alleviate the defect of the vertebral column presenting a displacement. In fact, only correction of the factors altering the mechanics makes possible lasting amelioration.

"7. It is false to think that during normal locomotion a normal vertebral column ought also to move. The lumbar section should remain immobile and stable. All movement produced by the mechanism of walking should normally be intercepted by the sacro-iliac, lumbo-sacral, and coxo-femoral articulations. It is at the level of the 1st mentioned that the movement is most accentuated; it then decreases in intensity to disappear at the lumbo-sacral level, the fifth lumbar vertebra remaining immobile.

"The best guarantee of the stability of the lumbar segments is the perfect mobility of the sacro-iliac and coxo-femoral mechanisms.

"8. It is an error to believe that one overcomes an anomaly of vertebral torsion by traction. The only way to remedy this defect is by another torsion exactly and mechanically applied.

"9. It is an error to believe that one can establish a vertebral disorder by comparison with another vertebral column. Only examination by an expert on the vertebral column can possibly assess the situation.

"10. It is an error to believe that any scoliosis of a physio-pathologic nature can be successfully treated by the Hippocratic method of extension.

"11. It is an error to believe that one can overcome a vertebral displacement by simple local reposition and thus obtain a definitive result.

"12. It is an error to believe that torsions can be expressed in ordinary measures of length. Torsions may be measured and evaluated only in weight (Leonardo da Vinci's principle: "Torsion equals weight.")

"13. It is an error to believe that examination of a single part of the column suffices for success in treatment. The vertebral column represents a compensatory apparatus; it is an entirety; it is a whole the parts of which are jointly and severally responsible. Every modification produced in one of the vertebral regions has its repercussions on the entire vertebral column.

"14. It is an error to believe that one vertebral displacement may be conceived as the sole expression of a reflex, or contrariwise, exclusively as a symptom of mechanical or dynamic origin. An efficacious treatment of the vertebral column must be based first on a differential diagnosis; what exactly is the cause of the initial displacement? How was this produced?

"15. It is false to proceed to replace a displaced vertebra thinking that it is necessary only to replace the displaced vertebra into the space anatomically proper to it. This is not enough; it is necessary especially to adjust in relation to the function which the vertebra is called upon to fulfill.

"16. A blocked (immobilized) vertebra is not necessarily displaced, and the immobilization is not necessarily manifested by local symptoms, but may give rise to excessive

demands upon one or several other vertebral segments which become the seat of pain . . .

"17. It is normal, after all, that a vertebral luxation should be accompanied by symptoms analogous to those presented by strains of other articulations, with the one difference that the vertebral edema has more far-reaching consequences than edema of another articulation."

The foregoing summary of conclusions based upon many years of intense professional activity and research directed exclusively to the human spinal column and pelvis at what may be regarded the foremost center of chiropractic research in any country is perhaps the most profound exposition of the rationale of chiropractic as a therapy yet produced. Approximately a quarter of a million dollars went into the development of the various types of precision apparatus required to carry on the scientific work upon which the conclusions are based. These included completely new techniques in roentgenology and the first x-ray motion pictures of the human spine and pelvis in action ever undertaken in the history of science. The results are so new and startling that their implications have not yet diffused to the average practitioner, but they are being included in the current standard curricula of the accredited chiropractic schools. Given the opportunity to function and progress as an autonomous profession, chiropractors will in the next few years absorb these concepts and put them fully into practice. They are at present a promising indicator of the scientific vigor and vitality of this dynamic profession.

It is particularly to be noted that the researches of Dr. Illi and his associates are in no sense an imitation or a duplication of work already attempted in the field of medicine. They are brilliantly original and probably at least fifty years ahead of the work of our medical colleagues, assuming that the latter have any interest in pursuing them to that extent. (The neglect of the spine in medical education is well known and has often been pointed out by medical authorities. See Weiant: *Medicine and Chiropractic*, p. 7 and 8. For this very reason much of the medical criticism of chiropractic is suspect.)

The particular contribution of Dr. Illi which I have quoted here is far from being a complete theory of chiropractic. It is in fact little more than the broad outline of the chiropractic interpretation of spinal function, distortion, and the goals of correction. The complete theory must take into account the role of the nervous system in health and disease and explain in what manner nervous function is impaired by spinal distortion.

Since all physiologists today recognize that the nervous system is the supreme coordinator and frequently the initiator of body processes and commonly refer to nerve tissue as "the master tissue", chiropractic theory makes this fact one of its basic assumptions. Unimpaired and well-integrated nervous activity is a *sine qua non* of health. The Russian patho-physiologist Speransky and his extensive corps of research associates have extended this concept to the role of the nervous system in disease (including communicable disease). (See Weiant: *Medicine and Chiropractic*, p. 82). The implications of their far-reaching conclusions are frequently ignored in the practice of medicine, but no one has yet proved them erroneous. German medicine of the past decade has been strongly influenced by Speransky's researches. (See, for example, *Medicine and Chiropractic*, p. 104, under "von Roques").

One of the first contentions ever advanced by chiropractors was that vertebral displacements reduce the size of openings between the vertebrae (the intervertebral foramina) and thereby cause pressure upon spinal nerves, or at least sufficient impingement to disturb neural conduction. They were able to show by means of anatomical preparations and by x-ray views of the spines of living subjects that such reduction in the size of the foramina occurs. Nineteen citations from medical literature in support of this contention are presented in *Medicine and Chiropractic*, Chapter VIII, pp. 37-45. The dissections of Dr. Peter Duus, professor of neurology at the University of Frankfurt, Germany, described on pp. 97 and 98 of the same work, furnish the most convincing proof of the contention.

Originally it was maintained by chiropractors that such reduction in the size of intervertebral foramina produces a corresponding reduction in the ability of the nerve to transmit impulses. Clinical observation and considerations based upon later researches in neuro-physiology, however, have caused them to conclude that this is rarely the case. There is much stronger reason to believe that the disturbance is of an irritating character. This view is confirmed in the observations of the German physician A. A. Hochfeld, who, in the *Zeitschrift fur Artzliche Fortbildung* (See Weiant, pp. 114 and 115) writes: "In the chiropractic reposition, not only is the subluxation reduced and even replaced, but above all else the pathological reflex arcs are broken, and thus a success is obtained similar to that of a novocaine blockage, except that the latter is of shorter duration."

Aside from disturbance within the intervertebral foramen, however, modern chiropractic theory also recognizes disturbed joint mechanics as responsible for nerve irritation in joint capsules, periosteum, ligaments, and other paravertebral structures. Graff and Gutzeit, among the German investigators of chiropractic, advance the same theory. (Weiant, pp. 98 and 99)

Like the German investigators Gutzeit and von Roques (Weiant, p. 106), the modern chiropractor denies that there is any single cause of disease. He recognizes the role of heredity, faulty nutrition, poisons, bacteria and viruses, and psychic trauma in disease production, but maintains that in almost every instance there is a spinal factor and that this factor is often crucial. He finds nothing inconsistent with this view in any of the findings of modern anatomy, physiology, biochemistry, pathology, bacteriology and immunology, or psychology.

The question has arisen, in view of the fact that chiropractic appears to focus its attention essentially upon the spinal nerves, whether it is applicable to conditions in which only the cranial nerves (nerves which do not pass through spinal openings) appear to be involved. In this connection it is noteworthy that the training in neurology provided by chiropractic schools is much more extensive than that required for graduation from a medical school. Often the medical student gets no more than a one-semester course in neurology — rarely more than two semesters. On the other hand, chiropractic curricula organized on an eight-semester basis, usually include seven semesters of neurology. The average medical graduate has not studied the subject in sufficient depth to be aware that (1) all cranial nerves with one possible exception have connections with spinal nerves which are described in all standard works on anatomy; (2) most cranial nerves respond to impulses relayed to them via spinal nerve pathways, and consequently their performance is governed to a large extent by the functioning of incoming spinal nerves; (3) all cranial nerves without exception depend upon an adequate blood supply to be able to function at all, and this blood supply (to the head) is regulated by vasomotor nerves which emit from the spine in the upper dorsal area. Thus there is anatomical and physiological foundation for the chiropractic theory that the function of spinal nerves exerts direct influence upon the function of cranial nerves.

The theory of chiropractic has often been regarded as

anti-scientific because of its incompatibility with the germ theory. This is a misinterpretation. Chiropractic students are thoroughly grounded in the signs of communicable disease, the mechanisms of transmission, and the public health measures employed to control their spread. They study the same textbooks as do medical students to acquire a knowledge of bacteriology, employ the same laboratory procedures to identify bacteria and other micro-organisms, and are examined in all the facts and theories of immunology. Their practice, however, seeks primarily to utilize the innate defense mechanisms of the body, rather than to rely primarily on anti-bacterial agents, the use of which is known to entail considerable risk. Their degree of success proves the soundness of this position. Nevertheless, they do not maintain that their practice is always adequate to meet all the problems of infectious disease. They are quick to recognize their limitations and to refer cases not amenable to chiropractic to practitioners of medicine. In connection with poliomyelitis their successes have been phenomenal. For evidence that this statement has been verified by competent medical authority, see Weiant: p.106.

One may sum up chiropractic theory as follows:

1. The human spinal column is constantly subjected to strains, trauma, and reflex disturbances which create subluxations, fixations, and group distortions of vertebral segments.

2. Subluxations, fixations, and group distortions of vertebral segments give rise to nerve irritation.

3. Nerve irritation is a potent factor in the genesis and maintenance of malfunction and pathologic processes in all parts of the body.

4. Manual correction of the commoner spinal defects is possible, and such correction tends to restore normal function.

5. Such correction minimizes the role of non-spinal factors in the etiology of disease.

"C. W. Weiant"

APPENDIX 6

"Pain Syndromes Originating in the Vertebral Column and their Amenability to Manipulative Treatment (in German)" — Leemann Canadian Medical Association Journal, April 1, 1958, Vol. 78.

Canad. M. A. J.
April 1, 1958, vol. 78

ABSTRACTS

Pain Syndromes Originating in the Vertebral Column and Their Amenability to Manipulative Treatment (in German)
R. A. LEEMANN: *Schweiz. med. Wchnschr.*, 87: 1289 and 1321, 1957.

It is increasingly obvious that many painful conditions of the back as well as of more peripheral parts are caused by functional or organic derangements of the spine. With this newer awareness has come improvement in diagnosis and treatment of many painful syndromes such as brachialgia paraesthetica nocturna or periarthritis humeroscapularis. The addition of "chiropractic" manoeuvres to general management permits treatment of the cause rather than the effect.

It behooves formal medicine to reconsider its attitude towards manipulation if only because the conditions in which it can be applied are quite common. Chormley stated in 1951 that of 2000 patients seen at the Mayo Clinic that year because of backache 80% had changes in cartilage or joints of the vertebrae. In 30% radicular symptoms were present. These changes are partly "normal" aging processes and partly degenerative. They predominate in segments of the vertebral column subjected to increased mechanical strains and stresses. Frequently some displacement of vertebrae, usually backwards but sometimes forwards, occurs, but it rarely amounts to complete spondylolisthesis. Relative "lack of space" in the root canals commonly develops, but of itself does not necessarily produce symptoms. If additional factors such as trauma or infection supervene, the lack of space becomes absolute and causes root irritation. Zuckschwerdt points out that a vicious circle may develop, where the above changes combine with muscular spasm, further narrowing the root, canal, increasing the pain and perpetuating it. The muscular spasm is of course painful in itself, and its prolonged presence may cause local reaction at its insertions (tendo-periostitis). Involvement of sympathetic fibres may produce circulatory and dystrophic disturbances, which may persist even after the original purely vertebral phase, and may cause permanent changes in bones, tendons and joint capsule. Thus a "primary neuralgia" of the shoulder is converted into humero-scapular periarthritis. Protrusion of intervertebral disc as a cause of root compression is well known, but swelling of protruded disc, hitherto asymptomatic, can cause the same symptoms. Subluxation of vertebrae is of particular importance in this connection. This is not a dislocation in the ordinary medical sense, but a locking similar to that in the knee with a loose meniscus. The locked intervertebral joint causes pain and inflammatory reaction, and can thus initiate a vicious circle. Abolition of such locking by chiropractic manoeuvres would explain the startling relief obtained from them in such cases.

The author describes the painful syndromes which can be produced in this manner, and which are of "vertebral origin". They include a cranio-encephalic and cervico-brachial syndrome in the cervical spine; intercostal neuralgia, pseudo-angina, pseudo-pleural pain, abdominal and inguinal neuralgias (pseudo-appendicitis) in the thoracic spine; lumbago, sciatica and periarthritis coxae in the lumbar spine. Diagnosis and differential diagnosis are of importance, the former because early recognition of the vertebral origin of a painful condition may prevent irreversible secondary changes, and the latter, because other conditions such as metastatic lesions of the vertebrae and diseases of the central nervous system, Pancoast tumours and others can mimic these syndromes.. Their presence must be ruled out before undertaking chiropractic manipulations. Treatment is considered under the following headings: (a) anti-inflammatory; (b) reflex-blocking, analgesic and spasmolytic; (c) circulatory, trophic (ganglion and paravertebral anæsthesia; (d) mechanical (including extension and manipulation); (e) functional and postural, and (f) operative. In acute painful syndromes the author recommends manipulation (unlocking of vertebræ?) followed by short rest in bed and after-treatment by massage and exercises.

In subacute forms, manipulation and mobilization of stiff joints must be accompanied by additional measures such as local anæsthesia or paravertebral block, hot packs, baths, massage and analgesics. In chronic cases manipulation is of little use, because of the predominance of secondary reactive changes. Extension, massage and exercises are of particular value in these cases.

After repeated warning that no type of manipulation should be carried out without x-ray examination, the author describes the "chiropractic" manœuvres he uses as well as the after-treatment. Experience of 100 manipulations in 80 patients over a 2-year period showed good results in all the recent cases. Complete failures were cases with symptoms of 8 months' or longer duration.

W. GROBIN

INFORMATION

for CHIROPRACTORS on ONTARIO STATUTES and REGULATIONS

JULY TWENTY-FIFTH
Nineteen Hundred and Sixty-two

BOARD OF DIRECTORS OF CHIROPRACTIC

DRUGLESS PRACTITIONERS ACT

PROVINCE OF ONTARIO

69 BLOOR STREET, EAST, | TORONTO 5, ONTARIO

This informative booklet is provided, after careful study and preparation, for the convenience and guidance of Ontario chiropractors by the Board of Directors of Chiropractic.

For accurate reference recourse should be had to the various Statutes and regulations.

While every effort has been made to ensure accuracy, Statutes and the regulations made under these various Acts are subject to amendment and change; the excerpts and interpretations as quoted herein were in effect on the date of publication.

The Revised Statutes of Ontario, 1960, and the Revised Regulations of Ontario, 1960, are usually available for study in public reference libraries, or questions may be directed to the various Government Departments or Boards charged with administrative responsibility.

Complete copies of any of these different Acts may be available by writing to the appropriate Departments or the Queen's Printer at the Parliament Buildings, Toronto, Ontario.

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THE DRUGLESS PRACTITIONERS ACT—

R.S.O. 1960, Chapter 114, as amended by THE DRUGLESS PRACTITIONERS AMENDMENT ACT, 1961-62, c. 36—Sections 7, 8, 11.

ACT DOES NOT AUTHORIZE PRACTICE OF MEDICINE

"7. Nothing in this Act or the regulations authorizes a person, not being so expressly authorized under a general or special Act of the Legislature, to prescribe or administer drugs for use internally or externally or to use or direct or prescribe the use of anaesthetics for any purpose whatsoever or to practise surgery or midwifery, R.S.O. 1950, c. 110, s. 4."

PENALTY FOR UNAUTHORIZED PRACTISE

"8. Every person who, not being registered as a drugless practitioner under this Act or, who having been so registered, whose registration has been cancelled or is under suspension, practises or holds himself out as practising as a drugless practitioner within the meaning of this Act, or who advertises or uses or affixes any prefix to his name signifying that he is qualified to practise as a drugless practitioner within the meaning of this Act is guilty of an offence and on summary conviction is liable to a fine of not more than $100 and on summary conviction for a subsequent offence within a period of two years after the first conviction shall be imprisoned for a term of not more than three months. R.S.O. 1950, c. 110, s. 5."

COMPLIANCE WITH OTHER STATUTES NOT AFFECTED

"11. Nothing in this Act or the regulations shall be taken or deemed to relieve any person from complying with THE PUBLIC HEALTH ACT, THE VACCINATION ACT or THE VITAL STATISTICS ACT or from any legal duty to provide for the treatment of any person by a legally qualified medical practitioner. R.S.O. 1950, c. 110, c. 8."

THE PUBLIC HEALTH ACT—

R.S.O. 1960, Chapter 321, as amended by The Public Health Amendment Act, 1960-61, c.80. Sections 59 (part), 60, 61, 62, 63 (part), 64 (part), 66, 67, 68, 70, 71, 72, 84, 116 (part), 117, Schedule B, item 27.

By Section 1 (a) of the Act, "communicable disease" means any contagious or infectious disease, . . .

Section 1 (a) of the Act, and regulation 2 (of R.R.O. 1960, Regulation 505) made under the Act declares those diseases listed in Table 1 of the regulations reproduced below, to be communicable diseases.

REMOVAL OF PERSON OR CLOTHING PROHIBITED

"59. (1) No householder in whose dwelling any communicable disease occurs shall permit any person suffering from or exposed to such disease to leave, or any clothing or other property to be removed from, his house without the consent of the medical officer of health, who may forbid such removal or prescribe the conditions thereof.

WHO TO BE DEEMED EXPOSED TO DISEASE

(3) Every person in a house when a commmunicable disease exists therein, and every person who during the period of quarantine enters such house, shall be deemed to be exposed to the disease. . . . "

REPORT BY PHYSICIAN

"60. (1) Whenever any legally qualified medical practitioner knows, or has reason to suspect, that any person whom he is called upon to visit is infected with any communicable disease, he shall within twelve hours give notice thereof to the medical officer of health of the municipality in which the diseased person is.

SUPERINTENDENTS OF HOSPITALS, ETC.

(2) This section applies to the medical superintendent or person in charge of any general or other hospital in which there is known to him to be a patient suffering from any communicable disease.

DRUGLESS PRACTITIONERS R.S.O. 1960 c. 114

(3) Subsection 1 applies to any person registered and practising as a drugless practitioner under THE DRUGLESS PRACTITIONERS ACT. R.S.O. 1960, c. 321, s. 60."

PRECAUTIONS AGAINST SPREAD OF INFECTION

"61. (1) Where a communicable disease is found or suspected to exist in a municipality, the medical officer of health and local board shall use all possible care to prevent the spread of infection or contagion by such means as in their judgment is most effective for the public safety.

CLOSING SCHOOLS, CHURCHES, ETC.

(2) The medical officer of health or local board, when it is considered necessary to prevent the spread of a communicable disease, may direct that any school or seminary of learning, or any church or public hall or other place used for public gatherings or entertainment in the municipality, be closed and may prohibit all public assemblies in the municipality, and no such school, seminary, church, hall or public place shall be kept open after such direction for the admission of the public, nor be re-opened without the permission of the medical officer of health. R.S.O. 1960, c. 321, s. 61."

ISOLATION OF PATIENT

"62. Where by the regulations this section is made applicable in respect of a communicable disease, the medical officer of health or the local board shall, as required by the regulations, isolate persons having such disease, persons who are or may be contacts therewith and persons who are or may be carriers thereof, and shall forthwith and as provided by the regulations quarantine the house or premises in which such disease exists or in which such persons are isolated. R.S.O. 1960, c. 321, s. 62."

ISOLATION OF INFECTED PERSONS

"63. (1) If any person in a municipality is infected or has recently been infected with, or exposed to, a communicable disease to which this section is made applicable by the regulations, the medical officer of health or local board shall make effective provision for the public safety by removing such person to a separate house, or by otherwise isolating him, and by providing medical attendance, medicine, nurses and other assistance and necessaries for him. . . . "

CARRIER OF GERMS

"64. (1) The medical officer of health shall take such steps as are necessary for the public safety with respect to any person in the municipality who in the opinion of the medical officer is a carrier of the germs of a communicable disease to which this section is made applicable by the regulations.

EXAMINATION

(2) The medical officer of health may require any person in the municipality whom he believes to be such a carrier to submit to such clinical or laboratory examination or investigation as may be necessary to determine whether such person is a carrier.

ORDERS AND DIRECTIONS

(3) The medical officer of health may give such orders or directions to any such carrier as he deems necessary to prevent the spread of the disease, and may direct such person to be isolated in any premises or locality, and may prohibit such person from residing in any premises or engaging in any work that in the opinion of the medical officer is likely to cause the spread of the disease, and may do all such acts as are necessary to enforce the carrying out of any such order, direction or prohibition. . . . "

REMOVAL OF PATIENTS

"66. No person suffering from a communicable disease to which this section is made applicable by the regulations shall be removed at any time except by permission and under direction of the medical officer of health, nor shall any occupant of any house in which there exists any such communicable disease change his residence to any other place without the consent of the medical officer of health or without complying with such conditions as he prescribes. R.S.O. 1960, c. 321, s. 66."

POWER TO ENTER PREMISES

"67. The medical officer of health, or a legally qualified medical practitioner appointed by him in writing for that purpose, may enter in and upon any house, out-house or premises, in the day time, for the purpose of making inquiry and examination with respect to the state of health of any person therein, and cause any person found therein who is infected with a communicable disease to be removed to a hospital or some other proper place. R.S.O. 1960, c. 321, s. 67."

ENTERING AND DISINFECTING PUBLIC CONVEYANCES

"68. (1) Where there is reason to suspect that a person suffering from a communicable disease to which this section is made applicable by the regulations is in or upon any railway car, street railway car, steamboat, vessel or other conveyance, the medical officer of health or sanitary inspector of the municipality, or any member of the local board, may enter such conveyance and cause such person to be removed therefrom, and may detain the conveyance until it is properly disinfected, or such officer or member may, if he thinks fit, remain on or in or re-enter and remain on or in such conveyance, with any assistance he may require, for the purpose of disinfecting it, and his authority continues in respect of such person and conveyance notwithstanding that the conveyance is taken into another municipality.

PAYMENT BY OWNER OF CONVEYANCE

(2) The expense incurred for medical attendance, care, nursing, maintenance and all costs for disinfection shall be paid by the owner of the conveyance in which such person is found.

AUTHORITY GIVEN BY DEPARTMENT

(3) Any legally qualified medical practitioner or sanitary inspector authorized by the Department has the same authority as a medical officer of health under this section. R.S.O. 1960, c. 321, s. 68."

PATIENTS AND NURSES, PRECAUTIONS AS TO DISINFECTION

"70. No person recovering from a communicable disease to which this section is made applicable by the regulations, and no nurse who has been in attendance on any such person, shall leave the premises or expose himself in any public place, street, shop, inn or public conveyance until he has received from the medical officer of health a certificate that in his opinion such person or nurse has taken such precautions as to his person, clothing and all other things that he proposes to bring from the premises as are necessary to insure the immunity from infection of other persons with whom such person or nurse may come in contact. R.S.O. 1960, c. 321, s. 70."

MEASURES PRESCRIBED BY DEPARTMENT

"71. Every such person and nurse shall adopt for the disinfection and disposal of excreta, and for the disinfection of utensils, bedding, clothing and other things that have been exposed to infection, such measures as are prescribed by the regulations or by the medical officer of health. R.S.O. 1960, c. 321, s. 71."

SANITARY PRECAUTIONS BEFORE MINGLING WITH PUBLIC

"72. No person suffering from or having recently recovered from a communicable disease to which this section is made applicable by the regulations shall mingle with the general public, and no person having access to any such person, except the attending physician and clergyman, shall do so, until such sanitary precautions as are prescribed by the medical officer of health have been complied with. R.S.O. 1960, c. 321, s. 72."

INSPECTION OF MUNICIPALITY

"84. The medical officer of health of a municipality, or any inspector or other person in the employ of the local board acting under his instructions, or any member of a local board, may enter, inspect and examine at any time of the day or night, as often as he thinks necessary, any premises in the municipality for the purpose of carrying out this Act, and may take such action as he deems necessary for carrying it out, and any person in charge of such premises for the time being shall render such aid to the medical officer of health or other person as is necessary to make such inspection or examination. R.S.O. 1960, c. 321, s. 84."

OFFENCES RE COMMUNICABLE DISEASES

"116. (1) Any person who contravenes any of the provisions of sections 58 to 78 for which no other penalty is provided is guilty of an offence and on summary convictionis liable to a fine of not less than $25 and not more than $100. . . . "

RECOVERY OF FINES

"117. The fines imposed by or under the authority of this Act are recoverable before a magistrate or two justices of the peace. R.S.O. 1960, c. 321, s. 117."

PLACARDING

"Schedule B—By-law in force in every municipality until altered by the Municipal Council.

27. The medical officer of health, within six hours after he has received notice of the existence in any house of any communicable disease or the presence of any communicable disease contacts in respect of which it his duty to do so, shall affix or cause to be affixed near the entrance of such house, in plain view of the public, a card at least twelve inches wide and nine inches long, stating that such premises are under quarantine on account of such disease and the penalty for the affixing or removal of such card without the permission of the medical officer of health, and no person shall affix or remove any such card without his permission."

REVISED REGULATIONS OF ONTARIO 1960, REGULATION 505 UNDER THE PUBLIC HEALTH ACT.

Regulation 1 *contains the following definitions*:—

(*a*) *"concurrent disinfection" means disinfection carried out while a person is still a patient.*

(*b*) *"contact" includes a person who comes so close to a patient or anything that has been exposed to infection from a patient that the germs of the communicable disease with which the patient is infected may infect that person.*

(*g*) *"recovery" means that a person who is, or was, a patient is no longer infectious.*

(*h*) *"terminal disinfection" means disinfection carried out after recovery, removal or death of a patient.*

THE PUBLIC HEALTH ACT

REGULATION 3 REQUIRES:—

(*a*) *that the medical officer of health shall cause a patient having a communicable disease itemized in column 1 of Table 2 to be isolated for the period prescribed in column 2 of the Table.*

(*b*) *that the medical officer of health shall cause the contacts of a communicable disease itemized in column 1 of Table 2 to be quarantined or confined in the dwelling where the communicable disease occurs for the period prescribed in column 3 of the Table.*

(*c*) *that where the disease of which a person is a contact is scarlet fever, poliomyelitis, epidemic streptococcal sore throat or meningococcal meningitis, the requirements for quarantine or confinement of the contact do not apply providing contact with the patient has been broken in a manner satisfactory to the medical officer of health, and the contact is engaged in a gainful occupation other than handling food or drink intended for consumption by any human being other than himself.*

REGULATION 4 REQUIRES:—

Where a person is infected with, or recovering from, a communicable disease itemized in column 1 of Table 2, the patient, and every nurse who is or has been in attendance on him, shall, upon the directions of the medical officer of health, adopt for the disinfection of things that have been exposed to infection the class of disinfection prescribed in column 4 of the Table.

REGULATION 5 REQUIRES:

Where a medical officer of health prescribes conditions for, and orders, the disinfection of premises on or in which a communicable disease occurs, or of utensils, bedding, clothing and other things that have been exposed to infection, and his order is not complied with within twenty-four hours, he shall quarantine the premises and cause a disinfection quarantine placard to be affixed on the exterior of the principal entrance to the premises.

REGULATION 6 REQUIRES:—

Where a person who is infected with or a contact of Asiatic cholera, diphtheria, meningo-coccal meningitis, plague, poliomyelitis, smallpox or typhus fever, is isolated on premises other than an isolation hospital, the medical officer of health shall quarantine the premises during the period of isolation prescribed in Table 2 for the disease, and cause a disease quarantine placard to be affixed on the exterior of the principal entrance to the premises.

REGULATION 7 REQUIRES:—

Unless instructed by the medical officer of health, no person shall remove, deface or destroy a placard affixed under the regulations. The medical officer of health shall cause the placard to be removed when his disinfection orders have been obeyed, or when the period of isolation required by regulation 6 has ended.

TABLE 1

APPLICABLE SECTIONS OF ACT

Communicable Diseases		Sections of the Act					
No. Item	Column 1	Col. 2	Col. 3	Col. 4	Col. 5	Col. 6	Col. 7
1	Actinomycosis	62			66	68	70
2	Anthrax	62			66	68	70
3	Amoebic dysentery	62		64	66	68	70
4	Asiatic cholera	62	63		66	68	70
5	Bacillary dysentery	62		64	66	68	70
6	Chickenpox	62			66	68	70
7	Diphtheria	62	63		66	68	70
8	Epidemic influenza	62					
9	Epidemic streptococcal sore throat	62			66	68	70
10	Erysipelas	62			66	68	70
11	German measles	62			66	68	70
12	Glanders	62			66	68	70
13	Infectious jaundice	62			66	68	70
14	Leprosy				66	68	70
15	Measles	62			66	68	70
16	Meningo-coccal meningitis	62	63		66	68	70
17	Mumps	62			66	68	70
18	Ophthalmia neonatorum	62			66	68	70
19	Paratyphoid fever A.B.C.	62		64	66	68	70
20	Plague	62	63		66	68	70
21	Poliomyelitis	62	63		66	68	70
22	Psittacosis	62			66	68	70
23	Puerperal sepsis	62			66	68	70
24	Rabies				66	68	70
25	Rocky Mountain spotted fever				66	68	70
26	Salmonellosis	62			66	68	70
27	Scarlet fever	62			66	68	70
28	Smallpox	62	63		66	68	70
29	Tuberculosis				66	68	70
30	Tularemia				66	68	70
31	Typhoid fever	62		64	66	68	70
32	Typhus fever	62	63		66	68	70
33	Undulant fever				66	68	70
34	Whooping cough	62			66	68	70

TABLE 2

ISOLATION AND DISINFECTION

Item No.	Column 1 Communicable Disease	Column 2 Period of Isolation of Patient	Column 3 Period of Quarantine of Contact	Column 4 Class of Disinfection
1	Actinomycosis	From the onset of the disease until recovery		Concurrent
2	Anthrax	From the onset of the disease until recovery		Concurrent
3	Amoebic dysentery	From the onset of the disease until, (a) five days after recovery; and (b) negative cultures are obtained from two specimens of faeces taken at an interval of twenty-four hours		Concurrent and terminal
4	Asiatic cholera	From the onset of the disease until negative cultures are obtained from two specimens of faeces and of urine taken at an interval of five days	During the period of contact with the patient and until, after the period has ended, negative cultures are obtained from two specimens of faeces and of urine taken from the contact at an interval of five days	Concurrent and terminal
5	Bacillary dysentery	From the onset of the disease, (a) until, (i) five days after recovery, or (ii) administration of a specific drug has ceased, whichever period is the longer; and (b) negative cultures are obtained from two specimens of faeces taken at an interval of twenty-four hours		Concurrent and terminal
6	Chickenpox	From the time of the appearance of the vesicles until, (a) seven days thereafter; or (b) the lesions are healed, whichever period is the longer.		
7	Diphtheria	i. In territory with municipal organization, from the onset of the disease. (a) for ten days thereafter; and (b) until, (i) negative cultures are obtained from two specimens of the discharge from the nose, the throat and a lesion on any other part of the body, which specimens are taken at an interval of twenty-four hours during which no treatment has been given, or (ii) where the negative cultures cannot be obtained under subclause i, one culture of the discharge from the nose or throat shows a negative result on a virulency test ii. In territory without municipal organization, for three weeks from the onset of the disease	i. During the period of contact with the patient and until one negative culture is obtained from specimens of the discharges from the nose and throat of the contact after the period of contact has been broken in a manner satisfactory to the medical officer of health ii. Same as sub-item i.	(i) Concurrent and terminal (ii) Same as sub-item i

8	Epidemic influenza	From the onset of the disease until recovery		
9	Epidemic streptococcal sore throat	From the onset of the disease, (a) for seven days thereafter; or (b) until the patient has no, (i) sore throat, or (ii) oral, nasal, or aural discharges, whichever period is the longer	For seven days after first becoming a contact	Concurrent
10	Erysipelas	From the onset of the disease until recovery		Concurrent
11	German meales	For five days from the onset of the disease		
12	Glanders	From the onset of the disease until recovery		Concurrent
13	Infectious jaundice	From the onset of the disease until recovery		
14	Leprosy			Concurrent and terminal
15	Measles	For seven days after the appearance of the rash		
16	Meningo-coccal meningitis	From the onset of the disease until, (a) ten days thereafter; or (b) recovery, whichever period is the shorter	In the case of a contact who is under twenty-one years of age, until the medical officer of health is satisfied that the patient has been isolated from the contact for ten consecutive days	Terminal
17	Mumps	From the onset of the disease until the swelling in the salivary glands has completely subsided		
18	Ophthalmia neonatorum	From the appearance of the first symptoms until a negative culture is obtained from each eye		Concurrent and terminal
19	Paratyphoid fever A.B.C.	From the onset of the disease, (a) until, (i) five days after recovery, or (ii) administration of a specific drug has ceased, whichever period is the longer; and (b) negative cultures are obtained from two specimens of faeces and of urine taken at an interval of twenty-four hours		Concurrent and terminal

Item No.	Column 1 Communicable Disease	Column 2 Period of Isolation of Patient	Column 3 Period of Quarantine of Contact	Column 4 Class of Disinfection
20	Plague	From the onset of the disease until seven days after recovery	Where the patient has the pneumonic type, (a) during the period of contact with the patient; and (b) for seven days thereafter	Concurrent and terminal
21	Poliomyelitis	For seven days after the onset of the disease	For seven days after the contact first came in contact with the patient	Concurrent and terminal
22	Psittacosis	From the onset of the disease until recovery		Concurrent and terminal
23	Puerperal sepis	From the onset of the disease until recovery		
24	Salmonellosis	From the onset of the disease until recovery		Concurrent
25	Scarlet fever	From the onset of the disease, (a) for seven days thereafter; or (b) until the patient has no, (i) sore throat, or (ii) oral or nasal discharges whichever period is the longer	For seven days after the contact first came in contact with the patient	Concurrent
26	Smallpox	From the onset of the disease until, (a) twenty-one days thereafter; or (b) all, (i) crusts have disappeared, and (ii) lesions have healed, whichever period is the longer	i. For a contact who has previously been successfully vaccinated, or a smallpox patient, (a) during the period of contact with the patient; and (b) from the time he was last in contact with the patient until, (i) he has been successfully vaccinated, or re-vaccinated, or (ii) he is proved to the satisfaction of the medical officer of health to be immune. ii. For a contact other than in sub-item i, during the period of contact with the patient and for sixteen days thereafter	Concurrent and terminal
27	Tuberculosis			Concurrent and terminal
28	Tularemia			Concurrent and terminal
29	Typhoid fever	From the onset of the disease, (a) until, (i) five days after recovery, or (ii) administration of a specific drug has ceased, whichever period is the longer; and (b) negative cultures are obtained from two specimens of faeces and of urine taken at an interval of twenty-four hours		Concurrent and terminal
30	Whooping cough	For three weeks after the onset of the disease	In the case of a child under twelve years of age who has had no previous attack, for the period of isolation of the patient	

The essential fact to be remembered and observed is that notification must be made within twelve hours to the medical officer of health of the municipality within which the diseased person is. Notification should be in writing. The penalty for non-notification or contravention of Section 60 of the Act, and sections related thereto, is laid down in Sections 116 and 117 as quoted above.

Any chiropractor who fails to follow the requirements as outlined above is liable to the penalties prescribed, and to receive adverse criticism for his omission.

As The Drugless Practitioners Act now stands, there is no permission granted to any registered and pactising drugless practioner in Ontario to visit or attend on cases of communicable diseases, notifiable to the medical officer of health of the municipality in which such diseased person is.

THE MEDICAL ACT–
R.S.O. 1960, Chapter 234—Sections 51, 52, 53, 59.

PENALTY FOR PRACTISING WITHOUT REGISTRATION

"51. No person not registered shall practise medicine, surgery or midwifery for hire, gain or hope of reward, and if any person not registered pursuant to this Act, for hire, gain or hope of reward practises or professes to practise medicine, surgery or midwifery, or advertises to give advice in medicine, surgery or midwifery, he is guilty of an offence and on summary conviction is liable to a fine of not less than $50 and not more than $100 for the first offence, and for any subsequent offence to a fine of not less than $200 and not more than $500. R.S.O. 1950, c. 228, s. 49."

PENALTY FOR FALSELY PRETENDING, ETC.

"52. Any person who wilfully or falsely pretends to be a physician, doctor of medicine, surgeon or general practitioner, or assumes any title, addition or description other than he actually possesses and is legally entitled to, is guilty of an offence and on summary conviction is liable to a fine of not less than $50 and not more than $100 for the first offence, and for any subsequent offence to a fine of not less than $200 and not more than $500. R.S.O. 1950, c. 228, s. 50."

USE OF CERTAIN TITLES RESTRICTED

"53. (1) Any person not registered pursuant to this Act who takes or uses any name, title, addition or description implying or calculated to lead people to infer that he is registered under this Act, or that he is recognized by law as a physician, surgeon, accoucheur or a licentiate in medicine, surgery or midwifery, or who assumes, uses or employs the title "Doctor", "Surgeon" or "Physician" or any affix or prefix indicative of such titles as an occupational designation relating to the treatment of human ailments or physical defects or advertises or holds himself out as such, is guilty of an offence and on summary conviction is liable to a fine of not less than $50 and not more than $100 for the first offence, and for any subsequent offence to a fine of not less than $200 and not more than $500.

EXCEPTION AS TO DENTISTRY

(2) Subsection 1 does not apply to any licentiate of dental surgery or any other person admitted to practise dentistry or dental surgery under THE DENTISTRY ACT. R.S.O. 1950, c. 228, s. 51."

LIMITATION OF PROSECUTIONS

"59. Every prosecution under this Act shall be commenced within one year from the date of the alleged offence. R.S.O. 1950, c. 228, s. 57."

THE HOURS OF WORK AND VACATIONS WITH PAY ACT— R.S.O. 1960, Chapter 181.

HOURS OF WORK—

By Regulation 2 (of R.R.O. 1960, Regulation 241) made under the Act, the hours of work requirements in the Act do not apply to an employee qualified under The Drugless Practitioners Act, The Nurses Registration Act, The Nursing Act, etc. Subject to the Act, the working hours of other employees shall not exceed eight in the day and forty-eight in the week. Where the working week is less than six days, the employer may, with the approval of the Industry and Labour Board, adopt a working day in excess of eight hours.

VACATIONS:—

Briefly, the employer must give an employee (other than those excepted, as above) at least one week of vacation per year, with pay. The employer determines the period when each employee may take the vacation, but the period shall not be later than ten months after the conclusion of the working year. The amount of pay for the vacation shall not be less than an amount equal to 2 per cent. of the pay received by the employee for all work done in the working year.

Where an employee ceases to be employed before completing his full year of employment he is entitled to pro rata payments of vacation credits in the form of vacation with pay credit stamps equal to 2% of the earnings he received during the portion of a year he was employed. If the employee ceases to be employed of his own accord before completing three months service it is not compulsory that a vacation credit be granted. On the other hand if the employment is terminated by the employer the credit is based on all earnings received.

The regulations provide the employer may make deductions from the vacation with pay credits of an employee where during the period of his employment such employee has been absent from his duties, not owing to illness or authorized absence in excess of one working day in each month during such employment period.

THE HYPNOSIS ACT, 1960-61, Chapter 38

(PROCLAIMED NOVEMBER 15TH, 1961)

This Act states that no person shall hypnotize or attempt to hypnotize another person except:—

(a) *any legally qualified medical practitioner using hypnosis in the practice of his profession.*

(b) *any dentist registered under THE DENTISTRY ACT using hypnosis in the practise of his profession.*

(c) *any psychologist registered under THE PSYCHOLOGISTS REGISTRATION ACT using hypnosis in the practise of his profession on the request of, or in association with, a legally qualified medical practitioner.*

(d) *a student registered in a course leading to qualification in one of the above professions, for the purpose of study under instruction and supervision of one of those named above.*

(e) *any member of any class of persons designated by the regulations made under the Act.*

THE HYPNOSIS ACT

Penalty for contravention of any provisions of the Act on summary conviction for a first offence is a fine of not less than $100 and not more than $1,000 or to imprisonment for a term of not more than six months, or to both. Penalty for a subsequent offence on summary conviction is a fine of not less than $200 and not more than $2,000 or to imprisonment for a term of not more than nine months, or to both.

Every prosecution under the Act shall be commenced within one year from the date of the alleged offence.

Regulations under (e) as above, published in The Ontario Gazette November 18th, 1961, do not include registrants under The Drugless Practitioners Act.

THE SANATORIA FOR CONSUMPTIVES ACT— R.S.O. 1960, Chapter 359—Sections 45, 55

MEDICAL OFFICER MAY REQUIRE EXAMINATION

"45. (1) A medical officer of health may, with the approval of an inspector, require any person who is resident in the municiality or district for which he is medical officer of health and who is suspected by him to be suffering from tuberculosis or who has been in contact with any person suffering from tuberculosis or who has been a patient in a sanatorium, to submit to such examination for tuberculosis as he directs. R.S.O. 1950, c. 346, s. 45; 1951, c. 81, s. 1.

NOTICE

(2) In requiring a person to submit to an examination under this section, the medical officer of health shall serve such person or, in the case of an infant, the parent or guardian of the infant, with a notice in writing signed by him and by an inspector, specifying the nature, time and place of the examination. R.S.O. 1950, c. 346, s. 45 (2).

OFFENCE

(3) Any person served with a notice who fails to carry out an order or direction contained therein is guilty of an offence and on summary conviction may be committed to a sanatorium for a period of not more than fourteen days to receive the examination considered necessary by the superintendent of the sanatorium to determine if the person is suffering from tuberculosis in an infectious state. R.S.O. 1956, c. 79, s. 1 . . . "

OFFENCE

"55. Any person who contravenes or is a party to the contravention, directly or indirectly, of any provision of this Act or the regulations is guilty of an offence and on summary conviction is liable to a fine of not less than $5 and not more than $500. R.S.O. 1950, c. 346, s. 52."

THE VENEREAL DISEASES PREVENTION ACT— R.S.O. 1960, Chapter 415, Section 1, Subsection (g), Section 11, subsections (1), (2).

INTERPRETATION

"1. In this Act, . . .
(g). 'venereal disease' means syphilis, gonorrhea or chancroid. R.S.O. 1950, c. 408, s. 1."

SUPPLY OF DRUGS, ETC., BY UNQUALIFIED PERSONS PROHIBITED

"11. (1) No person other than a physician shall attend upon or prescribe for or supply or offer to supply any drug, medicine, appliance or treatment to or for a person suffering from venereal disease for the purpose of the alleviation or cure of such disease.

OFFENCE

(2) Every person who contravenes subsection 1 is guilty of an offence and is liable to a fine of not less than $100 and not more than $500 and in default of immediate payment shall be imprisoned for a term of not more than twelve months."

THE VITAL STATISTICS ACT-
R.S.O. 1960, Chapter 419; 1960-61, Chapter 102.

1. *The Vital Statistics Act of Ontario gives no permission to any registered and practising drugless practitioner in Ontario to register with a Division Registrar the death of any individual.*

2. *In case death should occur the registered and practising drugless practitioner should, for his own protection, immediately notify the Official Coroner of the District, lay fully before him all the facts in his possession, relating to the last illness and death of the deceased person.*

THE WORKMEN'S COMPENSATION ACT—
R.S.O. 1960, Chapter 437–
Section 1, Subsection (1) (a), Section 51,
Subsections (1), (2), (4), (5), (6), (7), (8), (12), Sections 52, 65.

"1. (1) In this Act,

(a). 'accident' includes a wilful and an intentional act, not being the act of the workman, and a fortuitous event occasioned by a physical or natural cause; . . ."

MEDICAL AND SURGICAL AID DURING DISABILITY

"51. (1) Every workman entitled to compensation under this Part, or who would have been so entitled had he been disabled for five days, is entitled to such medical, surgical and dental aid, the aid of drugless practitioners registered under THE DRUGLESS PRACTITIONERS ACT, the aid of chiropodists registered under THE CHIROPODY ACT, and hospital and skilled nursing services, and, in the discretion of the Board where a workman is rendered helpless through permanent total disability, such other treatment, services or attendance as may be necessary as a result of the injury, and is entitled to such artificial member or members and apparatus and dental appliances and apparatus as may be necessary as a result of the injury, and to have the same kept in repair or replaced when deemed necessary by the Board. R.S.O. 1950, c. 430, s. 50 (1); 1951, c. 95, ss. 1, 6 (1).

INTERPRETATION

(2) In this Act, 'medical aid' means the medical, surgical and dental aid, the aid of drugless practitioners registered under THE DRUGLESS PRACTITIONERS ACT, the aid of chiropodists registered under THE CHIROPODY ACT, and hospital and skilled nursing services, and, where a workman is rendered helpless through permanent total disability, such other treatment, services or attendance and the artificial member or members and apparatus and repair above-mentioned. R.S.O. 1950, c. 430, s. 50 (2); 1951, c. 95, s. 6 (1).

PAYMENT FOR MEDICAL AID

(4) Medical aid shall be furnished or arranged for by the Board or as it may direct or approve and,

(a) in the industries in Schedule 1, shall be paid out of the accident fund and the necessary amount shall be included in the assessments levied upon the employers; and

(b) in the industries in Schedule 2, the amount shall be paid by the employer of the injured workman to the Board for payment.

ACCIDENTS ON OR AFTER JAN 1st, 1915

(5) A workman is entitled to such medical aid as may be necessary on or after the 1st day of January, 1947, for an accident happening on or after the 1st day of January, 1915. R.S.O. 1950, c. 430, s. 50 (4,5).

QUESTIONS TO BE DETERMINED BY BOARD

(6) All questions as to the necessity, character and sufficiency of any medical aid furnished or to be furnished and as to payment for medical aid shall be determined by the Board. R.S.O. 1950, c. 430, s. 50 (6); 1951, c. 95, s. 6 (2).

AMOUNT OF CHARGES FOR MEDICAL AID

(7) The fees or charges for medical aid shall not be more than would be properly and reasonably charged to the workman if he was paying them himself, and the amount thereof shall be determined by the Board, and no action for any amount larger than that determined by the Board under this subsection lies against the Board and no action in respect of such fees and charges lies against the injured workman, his employer or any other person. 1951, c. 95, s. 6 (3).

RENDERING OF ACCOUNTS FOR MEDICAL AID

(8) Where accounts for payment of medical aid are not received by the Board within such time as the Board may prescribe, the Board may impose such penalty by way of a percentage reduction in the amount of the account as it may prescribe. 1951, c. 95, s. 6 (4).

DUTY OF EMPLOYER AS TO FURNISHING INJURED WORKMAN WITH TRANSPORTATION

(12) Every employer shall at his own expense furnish to any workman injured in his employment, who is in need of it, immediate conveyance and transportation to a hospital, or to a physician, or to the workman's home, and any employer failing so to do is liable, by order of the Board, to pay for such conveyance and transportation as may be procured by the workman or by anyone for him, or as may be provided by the Board. . . . "

"52. Every physician, surgeon, hospital official or other person attending, consulted respecting, or having the care of, any workman shall furnish to the Board from time to time, without additional charge, such reports as may be required by the Board in respect of such workman. R.S.O. 1950, c. 430, s. 51; 1951, c. 95, s. 7."

POWERS OF BOARD

"65. The Board has the like powers as the Supreme Court for compelling the attendance of witnesses and of examining them under oath, and compelling the production of books, papers, documents and things. R.S.O. 1950, c. 430, s. 64."

The Workmen's Compensation Board Circular G, "Claims Information For Workmen and Employers", January, 1960 contains much of the above but in different form, and the following excerpts are quoted for your information:—

Page 3—When is Compensation Payable?

Compensation is payable to a workman for personal injury caused by accident arising out of and in the course of employment—this includes disability as the result of an industrial disease, and other disease shown to be peculiar to or characteristic of a particular industrial process, trade or occupation. Except—

(1) *Where the injury does not disable him for more than four calendar days from earning full wages;*

(2) *Where the accident is attributable solely to his serious and wilful misconduct unless the result is death or serious disablement.*

Page 6—Medical Aid.

When a claim has been allowed by the Board the workman is entitled to receive whatever medical and dental aid is necessary. He is also entitled to whatever artificial limbs or appliances are necessary, and to have them kept in repair or replaced on the approval of the Board.

The Board gives the injured workman, coming under the Act, the initial choice of doctor, but he may not, without permission or approval of the Board, change doctors, leave Ontario or transfer to a distance for treatment.

All medical aid is under the direction of the Board and paid for directly through the Board.

It is unlawful for an employer to collect from a workman any contribution towards medical aid. A doctor is not entitled to collect from a claimant for services rendered under the Act.

OTHER STATUTES (WITH MOST OF THE SUBSEQUENT AMENDMENTS SHOWN IN BRACKETS) AS LISTED BELOW MAY BE OF INTEREST, BUT EXTRACTS ARE NOT INCLUDED IN THIS BOOKLET:—

Anatomy Act, R.S.O. 1960, Chapter 14

Assessment Act, R.S.O. 1960, Chapter 23

Cancer Remedies Act, R.S.O. 1960, Chapter 46

Chiropody Act, R.S.O. 1960, Chapter 57

Coroners Act, R.S.O. 1960, Chapters 69 (1960-61, Chapter 12) (1961-62, Bill 15)

Dental Technicians Act, R.S.O. 1960, Chapter 90 (1960-61, Chapter 17)

Dentistry Act, R.S.O. 1960, Chapter 91 (1961-62, Bill 29)

Evidence Act, R.S.O. 1960, Chapter 125 (1960-61, Chapter 24)

Hospital Services Commission Act, R.S.O. 1960, Chapter 176

Interpretation Act, R.S.O. 1960, Chapter 191

Jurors Act, R.S.O. 1960, Chapter 199 (1961-62, Bill 20)

Mental Health Act, R.S.O. 1960, Chapter 235

Mental Hospitals Act, R.S.O. 1960, Chapter 236 (1960-61, Chapter 55)

Minimum Wage Act, R.S.O. 1960, Chapter 240

Municipal Act, R.S.O. 1960, Chapter 249 (1960-61, Chapter 59)

Municipal Health Services Act, R.S.O. 1960, Chapter 256

Nurses Registration Act, R.S.O. 1960, Chapter 264

Nursing Act, R.S.O. 1960, Chapter 265 (1960-61, Chapter 62)

Optometry Act, R.S.O. 1960, Chapter 283 (1960-61, Chapter 73)

Ophthalmic Dispensers Act, 1960-61, Chapter 72

Pharmacy Act, R.S.O. 1960, Chapter 295

Private Hospitals Act, R.S.O. 1960, Chapter 305

Private Sanitaria Act, R.S.O. 1960, Chapter 307

Psychiatric Hospitals Act, R.S.O. 1960, Chapter 315

Psychologists Registration Act, R.S.O. 1960, Chapter 316

Public Hospitals Act, R.S.O. 1960, Chapter 322

Summary Convictions Act, R.S.O. 1960, Chapter 387 (1961-62, Bill 27)

Vaccination Act, R.S.O. 1960, Chapter 412

Wages Act, R.S.O. 1960, Chapter 421 (1961-62, Chapter 103)

Criminal Code, R.S.C. 1953-54, Chapter 51 (and subsequent amendments)

AMENDMENT

AUGUST 30TH., 1963

To "INFORMATION FOR CHIROPRACTORS ON ONTARIO STATUTES AND REGULATIONS"

(JULY 25th, 1962)

BOARD OF DIRECTORS OF CHIROPRACTIC

69 BLOOR STREET EAST

TORONTO 5, ONTARIO

PAGE 1, CHANGE HEADING TO READ:—

THE PUBLIC HEALTH ACT—

R.S.O. 1960, Chapter 321; 1960-61 c. 80; 1961-62 c. 11; 1962-63 c. 113. Sections 59 (part), 60, 61, 62, 63 (part), 64 (part), 66, 67, 68, 70, 71, 72, 84, 116 (part), 117, Schedule B, item. 27.

PAGE 10, LINE 11:—

Correct word "pactising" to read "practising"

PAGE 10, CHANGE HEADING TO READ:—

THE MEDICAL ACT—

R.S.O. 1960, Chapter 234; 1962-63 c. 80. Sections 51, 52, 53, 59.

Delete Sections 51, 52 and Subsection (1) of Section 53, and replace with the following new sections and subsection:—

PENALTY FOR PRACTISING MEDICINE WITHOUT REGISTRATION

"51. No person not registered shall practise medicine, surgery or midwifery for hire, gain or hope of reward, and, if any person not registered pursuant to this Act, for hire, gain or hope of reward, practises or professes to practise medicine, surgery or midwifery, or advertisers to give advice in medicine, surgery or midwifery, he is guilty of an offence and on summary conviction is liable for the first offence to a fine of not less than $50 and not more than $500, for the second offence to a fine of not less than $200 and not more than $1,000, and for any subsequent offence to a fine of $1,000 and not more than six months imprisonment."

PENALTY FOR PRETENDING TO BE PHYSICIAN

"52. Any person who wilfully or falsely pretends to be a physician, doctor of medicine, surgeon or general practitioner, or assumes any title, addition or description other than he actually possesses and is legally entitled to, is guilty of an offence and on summary conviction is liable for the first offence to a fine of not less than $50 and not more than $500, for the second offence to a fine of not less than $200 and not more than $1,000, and for any subsequent offence to a fine of $1,000 and not more than six months imprisonment."

PENALTY FOR UNAUTHORIZED USE OF TITLE

"53. (1) Any person not registered pursuant to this Act who takes or uses any name, title, addition or description implying or calculated to lead people to infer that he is registered under this Act, or that he is recognized by law as a physician, surgeon, accoucheur or a licentiate in medicine, surgery or midwifery, or who assumes, uses or employs the title "Doctor", "Surgeon" or "Physician" or any affix or prefix indicative of such titles as an occupational designation relating to the treatment of human ailments or physical defects, or advertises or holds himself out as such, is guilty of an offence and on summary conviction is liable for the first offence to a fine of not less than $50 and not more than $500, for the second offence to a fine of not less than $200 and not more than $1,000, and for any subsequent offence to a fine of $1,000 and not more than six months imprisonment."

PAGE 11, CHANGE HEADING TO READ:—

THE HOURS OF WORK AND VACATIONS WITH PAY ACT—

R.S.O. 1960, Chapter 181; 1961-62 c. 58.

Lines 3 and 4, delete the words "The Nurses Registration Act, The Nursing Act". (These statutes have been replaced by The Nurses Act, 1961-62, c. 90).

PAGE 12, CHANGE HEADING TO READ:—

THE SANATORIA FOR CONSUMPTIVES ACT—

R.S.O. 1960, Chapter 359; 1961-62 c. 129—Sections 45, 55.

PAGE 13, CHANGE HEADING TO READ:—

THE VITAL STATISTICS ACT—

R.S.O. 1960, Chapter 419; 1960-61 c. 102; 1961-62 c. 142; 1962-63 c. 141.

PAGE 13, CHANGE HEADING TO READ:—

THE WORKMEN'S COMPENSATION ACT—

R.S.O. 1960, Chapter 437; 1962-63 c. 145.
Section 1, Subsection 1 (A). Section 51, Subsections (1), (2), (4), (5), (6), (7), (8), (12). Sections 52, 65.

DELETE SECTION 1, (1) (A), AND REPLACE WITH THE FOLLOWING:

"1. (1) In this Act,

(a). 'accident' includes,

(I) a wilful and intentional act, not being the act of the workman,
(II) a chance event occasioned by a physical or natural cause, and
(III) disablement arising out of and in the course of employment."

In line 2 of Section 51 (1) delete the word "five" and insert in lieu the word "three".

PAGE 15, CORRECT AND AMEND THE LIST OF STATUTES, LISTED AS FOLLOWS:

Assessment Act, R.S.O. 1960, Chapter 23; 1960-61 c. 4; 1961-62 c. 6; 1962-63 c. 7.

Coroners Act, R.S.O. 1960, Chapter 69; 1960-61 c. 12; 1961-62 c. 20.

Dental Technicians Act, R.S.O. 1960, Chapter 90; 1960-61 c. 17 (in force 1st July, 1961): 1962-63 c. 31.

Dentistry Act, R.S.O. 1960, Chapter 91; 1961-62 c. 29.

Hospital Services Commission Act, R.S.O. 1960, Chapter 176; 1961-62 c. 55; 1962-63 c. 58.

Jurors Act, R.S.O. 1960, Chapter 199; 1961-62 c. 66; 1962-63 c. 67.

Mental Hospitals Act, R.S.O. 1960, Chapter 236; 1960-61 c. 55; 1961-62 c. 79; 1962-63 c. 81.

Minimum Wage Act, R.S.O. 1960, Chapter 240; 1962-63 c. 83.

Municipal Act, R.S.O. 1960, Chapter 249; 1960-61 c. 59; 1961-62 c. 86; 1962-63 c. 87.

Optometry Act, R.S.O. 1960, Chapter 283; 1960-61 c. 73; 1961-62 c. 101. sup. (in force 19th January, 1963).

Ophthalmic Dispensers Act, 1960-61 c. 72 (in force 8th December, 1961); 1961-62 c. 100; 1962-63 c. 100.

Private Hospitals Act, R.S.O. 1960, Chapter 305; 1962-63 c. 107.

Private Sanitaria Act, R.S.O. 1960, Chapter 307; 1961-62 c. 110; 1962-63 c. 108.

Psychiatric Hospitals Act, R.S.O. 1960, Chapter 315; 1962-63 c. 111.

Psychologists Registration Act, R.S.O. 1960, Chapter 316; 1962-63 c. 112.

Public Hospitals Act, R.S.O. 1960, Chapter 322; 1961-62 c. 116.

Summary Convictions Act, R.S.O. 1960, Chapter 387; 1961-62 c. 134.

Wages Act, R.S.O. 1960, Chapter 421; 1960-61 c. 103; 1962-63 c. 143.

PAGE 15, DELETE TITLES "NURSES REGISTRATION ACT", AND "NURSING ACT" FROM LIST, AS THESE TWO STATUTES HAVE BEEN REPLACED.

Insert:

NURSES ACT, 1961-62 C. 90 (IN FORCE 1st JANUARY, 1963): 1962-63 c. 92.

DELETE TITLE "PHARMACY ACT" FROM LIST.

PAGE 15, ADD THE FOLLOWING TITLES TO LIST:

Human Tissue Act, 1962-63 c. 59.
Radiological Technicians Act, 1962-63, c. 122.

ADDENDUM:—ADD THE FOLLOWING EXCERPT FROM THE FOLLOWING STATUTE:

THE PHARMACY ACT—
R.S.O. 1960, Chapter 295; 1961-62 c. 103. Section 1 (D).

Interpretation:

"1. In this act,

(d) 'drug' means,

(i) any substance that is classified as a drug in any of the following publications:

NAME	ABBREVIATION	EDITION
PHARMACOPOEA INTERNATIONALIS	(Ph. I)	I AND SUPP. 1959
THE CANADIAN FORMULARY	(C.F.)	1949
THE BRITISH PHARMACOPOEIA	(B.P.)	1958 and ADD. 1960
THE BRITISH PHARMACEUTICAL CODEX	(B.P.C.)	1959
THE PHARMACOPOEIA OF THE UNITED STATES OF AMERICA	(U.S.P.)	XVI
THE NATIONAL FORMULARY	(N.F.)	XI
NEW AND NONOFFICIAL DRUGS	(N.N.D.)	1962
CODEX FRANCAIS	(CODEX)	VII

(ii) any preparation containing any substance mentioned in subclause i, or

(iii) any substance that is offered for sale or sold for the prevention or treatment of any ailment, disease or physical disorder, or

(iv) any substance that is named by regulation made by the Lieutenant Governor in Council, or

(v) any preparation containing or represented as containing a vitamin that furnishes in the largest recommended daily intake, more than,

A. 10,000 International Units of vitamin A or provitamin A,
B. 4.5 milligrams of thiamine,
C. 7.5 milligrams of riboflavin,
D. 45 milligrams of niacin or niacinamide,
E. 1 milligram of folic acid,
F. 14 micrograms of vitamin B12,
G. 150 milligrams of ascorbic acid,
H. 1,000 International Units of vitamin D,
I. 25 International Units of vitamin E, or
J. any amount of vitamin K.

but does not include any such substance or preparation offered for sale or sold as, or as part of, a food, drink or cosmetic or for any purpose other than the prevention or treatment of any ailment, disease or physical disorder; . . . "

ONTARIO CHIROPRACTIC ASSOCIATION

MEMORANDUM

January 20th, 1964

TO: Dr. J. Gerald Hagey, Chairman, Medical Services Insurance Enquiry.

AND TO: All members of the Enquiry

FROM: D. C. Sutherland, D.C.,

SUBJECT: Typographical errors in brief of Ontario Chiropractic Association.

Dr. Hagey and members of the Enquiry,

In our haste to have our brief in your hands by November 15th., we overlooked several typographical errors in the copy and would like to correct them at this time.

Kindly refer to:

Recommendation #16 - The sentence under (A) should be underlined as it was a part of the original recommendation to the Royal Commission. The sentence under (a) is the beginning of our comment on this recommendation.

Page 10, para 55 - The second last line should conclude as follows: "Suffice it to say here that under the heading of ..."

Page 21, para 114 - The second line should conclude as follows: "..second edition, Exhibit 17, points out that the ..."

Page 21, para 114 (c) - In line 2 "connecting" is misspelled.

(e) - In line 1 "vertebrae" should be "vertebra". In line 3 "rehabilitating" is misspelled.

Page 24, para 122 - Third word should be "caused".

January 30th, 19[illegible]

[illegible]. E. A. Hardy, Chairman, Medical Services Insurance Enquiry.

TO: All members of the Enquiry

FROM: L. C. Sutherland, Q.C.

SUBJECT: Typographical errors in brief of Ontario Chiropractic Association.

Dr. Hardy and members of the Enquiry,

In our haste to have our brief in your hand[illegible] November 15th, we

overlooked several typographical errors in the copy we sent you to submit this

morning this time.

Kindly refer to:

Recommendation "1" - The sentence under (A) should be underlined as it was a part

of the original recommendation to the Royal Commission.

Page 10, para 32 - The second last line should conclude as follows: "Suffice it to

say here that under the heading of ..."

Page 11, para 33 - The second line should conclude as follows: "...second it to

Exhibit 12. points out that ..."

Page 21, para 111 (c) - In line 2 "connecting" is misspelled.

( ) - In line 3 "vertebrae" should be "vertebra".

In line 3 "rehabilitating" is misspelled.

Page 24, para 122 - Third word should be "cause".

Page 27, para 140 - In line 1, "chiropractical" should be "chiropractic".

Page 29, para 150 - In line 1, "has" should be "have".

Page 33, para 168 - In line 2 "the number of frequency" should be "the number and frequency"

Page 46, para 209 - In the third line "67" should be "68"

Page 49, para 219 - At the end of the paragraph add "(Exhibit 17)".

Page 50, para 219,1 -(g) - In the 4th line, "servical" should be "cervical",

Page 51, para 219,2 -(b) - In line 6, "circulatory" is misspelled.
2 -(c) - In line 2, "Association" is misspelled.

Page 55, para 219, 4, (f)- In the second last line, "disturbances" is misspelled.

Page 64, para 236 - In line 7 "proponents" is misspelled.

Page 65, para 240 - In the last line on the page "Globe" is misspelled.

Page 66, para 241 - In the 3rd line, "incompatible" is misspelled.

Page 67, para 244 - In the 4th line, "we" is misspelled.

Page B-1, Exhibit Number 13 - The word "Intervertebral" is misspelled.

We regret the number of errors in the printing of our brief and can only attribute them to our haste in attempting to meet the deadline for submission of presentation.